

THE DEPARTMENT OF THE AMERICAN CONFERENCE OF PHARMACEUTICAL FACULTIES

(EDITOR'S NOTE: The colleges of pharmacy belonging to the Conference will require three years as a minimum course after 1925. Many colleges are now preparing their curricula for this three-year course. Dean Faser's article which follows is timely as it sets forth the curriculum of the three-year course in the Mississippi School of Pharmacy.

C. B. JORDAN, *Chairman and Editor.*)

COURSE OF STUDY, UNIVERSITY OF MISSISSIPPI SCHOOL OF PHARMACY.

BY HENRY M. FASER.

Beginning with the session of 1925-1926 the Conference Schools will extend their minimum course to three years. At our institution we decided that we would go to three years as our minimum course in 1924-1925 and, accordingly, we have made preparations to do this.

Our faculty has been at work for some time working out the course of study. Our aim has been to have the three-year course so arranged that on completion of same, for which the Pharmaceutical Chemist degree will be conferred, the student could spend the fourth year and receive the Bachelor of Science in Pharmacy degree.

For many years our entrance requirements have been high school graduation, the same as required to enter the academic department of the university. When we raised our admission requirements from two years of high school to four years of high school, it not only put us in good favor with the members of the general faculty of the university, but it raised us considerably in the estimation of the high school teachers of the State, and we immediately received their support with the outcome that our school grew so rapidly that it was necessary to have new and larger quarters, hence our modern building and equipment. Now since our announcement that we are going to give only a three- and four-year course beginning next year, we are already receiving increased support and boosting and I think I am safe in saying that we may expect increased attendance.

The three-year course is outlined below.

FIRST YEAR.			
1st Semester.	Hours.	2nd Semester.	
Pharmacy.....	7		
Pharmaceutical Botany.....	5	Same as first semester with	
Chemistry—General.....	7	typewriting left off	
English.....	3		
Typewriting.....	2		
	—		
Total	24 clock hours	Total	22 clock hours
	16 credit hours		16 credit hours

SECOND YEAR.

1st Semester.		2nd Semester.	
	Hours		Hours.
Pharmacy.....	7	Pharmacy.....	7
Pharmacognosy.....	6	Pharmacognosy.....	6
Posology.....	1	Toxicology.....	2
Chemistry—Organic.....	5	Chemistry—Organic.....	5
Chemistry—Drug Assay.....	6	Chemistry—Drug Assay.....	6
—		—	
Total	25 clock hours	Total	26 clock hours
	17 credit hours		18 credit hours

THIRD YEAR.

1st Semester.		2nd Semester.	
	Hours.		Hours.
Pharmacy.....	3	Pharmacy.....	3
Pharmacognosy.....	4	Pharmacognosy.....	6
Chemistry—Physiological.....	6	Chemistry—Physiological.....	6
Materia Medica.....	4	Materia Medica.....	2
Bacteriology.....	6	Economics.....	3
Economics.....	3	Accountancy.....	3
—		—	
Total	26 clock hours	Total	23 clock hours
	17 credit hours		16 credit hours

From the above it will be seen that 146 semester clock hours of work are given with 100 semester credit hours.

Upon completion of the second year of this course, should the student decide that he wants to spend two more years and receive the B.S. degree, some changes may be made, as for instance a foreign language may be substituted for the economics in order that he may get two years of the language.

For the fourth year leading to the Bachelor of Science in Pharmacy degree the following work is given:

A six semester hour course in Pharmacy Research including the History of Pharmacy.

A six semester hour course in General History.

A six semester hour course from the following list of Natural Sciences—Chemistry, Physics, Biology, Geology.

A six semester hour course from the following list of Social Sciences—Economics, History, Politics, Psychology, Sociology.

A six semester hour course from the following list of Mathematics-Language group—Mathematics, English, Foreign Language: German, French, Spanish, Latin, Greek.

SIMON N. JONES MEMORIAL.

The National Association of Retail Drug-gists is planning the foundation of a Simon N. Jones Memorial by the establishment of a scholarship in the Louisville College of Pharmacy, of which Mr. Jones was president

for many years. The amount required for the memorial is \$3000, of which more than \$500 has already been subscribed. Contributions may be sent to the N. A. R. D., 168 N. Michigan Boulevard, Chicago. A sketch of Mr. Jones will be found in the September JOURNAL A. PH. A. for 1921, p. 653.

UNITED STATES PHARMACOPŒIA.
TENTH REVISION.

ABSTRACT OF PROPOSED CHANGES WITH NEW STANDARDS AND DESCRIPTIONS.*

PART IV.

EXTRACTS, FLUIDEXTRACTS AND TINCTURES.

The Pharmacopœial Convention of 1920 recommended that abstracts of changes proposed for the U. S. P. X. and new standards and descriptions be published before final adoption, that those who are not members of the Revision Committee may have an opportunity for comment and criticism.

In compliance with this recommendation, the following abstracts are submitted. The nomenclature and the exact wording of the text do not necessarily represent that to be finally adopted and doses have not been appended.

Comments should be sent to the Chairman of the Revision Committee,

E. FULLERTON COOK,

636 South Franklin Square,
Philadelphia, Pa.

GENERAL TOPICS.

Fineness of Powders.—Instead of specifying in each formula the number of the powder, the following descriptive terms are to be used: "Coarse," "Moderately coarse," "Fine," "Very fine."

"The term 'coarse' as applied in the Pharmacopœial formulas to the powdered drugs specified shall be defined as a powder not less than 95 per cent. of which will pass through a sieve having 20 meshes to the linear inch.

"The term 'moderately coarse' shall be defined as a powder not less than 95 per cent. of which will pass through a sieve having 40 meshes to the linear inch.

"The term 'fine' shall be defined as a powder not less than 95 per cent. of which will pass through a sieve having 60 meshes to the linear inch.

"The term 'very fine' shall be defined as a powder not less than 95 per cent. of which will pass through a sieve having 100 meshes to the linear inch."

Special Alcohol for Extracts and Resins.—The following paragraph is to be added on this subject:

"In the manufacture of Pharmacopœial extracts and resins in which alcohol is used as a solvent only and does not remain in the finished product, it is permissible that alcohol made non-potable by the addition of from five to ten per cent. by volume of commercially pure methyl alcohol or acetone may be used in the place of ethyl alcohol in accordance with Federal Statutes and Regulations of the Internal Revenue Department, but the products must conform to the official requirements as determined by the tests of the U. S. P. X., and the finished preparations must be identical with those made by the official processes. This provision is not to be construed as permitting the use of denatured alcohol in any medicinal product containing alcohol intended for internal use."

EXTRACTS.

Extractum Belladonnæ Foliorum.—No change.

Extractum Cannabis.—Glucose is to be eliminated as a diluent and replaced by storax or sub-standard extract of cannabis.

Moderately coarse powder replaces No. 20 powder.

Extractum Cascara Sagradæ.—No change.

Extractum Colchici Cormi.—No change.

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J. H. BEAL,

801 W. Nevada Street,
Urbana, Illinois.)

Extractum Colocynthis.—No change.

Extractum Colocynthis Compositum.—No change.

Extractum Fellis Bovis.—No change in formula but an assay is suggested.

Extractum Glycyrrhizæ.—Ash limit—increased from 6 per cent. to 8 per cent.

Extractum Glycyrrhizæ Purum.—Process changed: Glycyrrhiza, in coarse powder, 1000 Gm.; Boiling Water, *a sufficient quantity*.

Moisten the Glycyrrhiza with sufficient boiling water, transfer the mixture to a metal percolator and percolate with boiling water until the drug is exhausted. Promptly evaporate the percolate on the water-bath to a pilular consistence.

Extractum Hyoscyami.—No change.

Extractum Nucis Vomicae.—Process of manufacture changed:

Use "moderately coarse" Nux vomica. Extract with a mixture of 75 volumes of alcohol, 1 volume of acetic acid and 24 volumes of water. The benzin solutions are not washed with acid, chloroform, etc.

Extractum Rhei.—Magnesium oxide is eliminated from the formula and starch only is used as diluent.

Extractum Stramonii.—Use "moderately coarse" Stramonium. Magnesium oxide is eliminated and starch only is used as diluent.

FLUIDEXTRACTS.

Fluidextractum Belladonnæ Foliorum.—Formula and directions:—

"Belladonna leaves in moderately coarse powder, 1000 Gm.

"Prepare a fluidextract by Type Process A (see page —) using a mixture of 3 volumes of alcohol and 1 volume of water as the menstruum, and reserving the first 600 cc. of percolate.

"After dissolving the soft extract in the reserve liquid, assay a portion as directed below, and, from the result thus obtained, ascertain by calculation the amount of alkaloids in the remainder of the liquid and dilute this with enough menstruum to make each 100 cc. of the finished fluidextract contain 0.3 Gm. of the alkaloids of belladonna leaves."

Fluidextractum Belladonnæ Radicis.—No change.

Fluidextractum Buchu.—No change.

Fluidextractum Cannabis.—"Moderately coarse" powder to replace No. 30.

Fluidextractum Cascara Sagradæ.—Coarse powder to replace No. 40.

Fluidextractum Cascara Sagradæ Aromaticum.—"Coarse" powder to replace No. 40.

Magnesium oxide 125 Gm. is replaced by magnesium oxide 60 Gm. and calcium oxide 60 Gm., the latter to be slaked before mixing with the cascara. The cascara is thoroughly mixed with these oxides, moistened with boiling water, set aside in a shallow dish for forty-eight hours before packing and percolating.

The alcohol is reduced from 250 cc. to 200 cc.

Fluidextractum Cimicifugæ.—No change.

Fluidextractum Cinchonæ.—No change.

Fluidextractum Colchici Seminis.—No change.

Fluidextractum Ergotæ.—Coarse powder to replace No. 40, and the drug is percolated with Purified Petroleum Benzin before proceeding with the regular percolation.

Fluidextractum Eriodictyi.—Moderately coarse powder replaces No. 30 powder.

Fluidextractum Glycyrrhizæ.—Formula and directions changed: "Glycyrrhiza in coarse powder, 1000 Gm.; Alcohol, 250 cc. Prepare a fluidextract by Type Process D (see page —). Promptly evaporate the aqueous percolate to 750 cc., allow this to cool and gradually add the alcohol, and, if necessary, sufficient water to make the product measure 1000 cc."

Fluidextractum Hydrastis.—No change.

Fluidextractum Hyoscyami.—No change.

Fluidextractum Ipecacuanhæ.—Formula and directions changed: "Ipecac in fine powder, 1000 Gm.; Diluted Hydrochloric Acid, *a sufficient quantity*.

"Prepare a fluidextract by Type Process B (see page —), using a menstruum of 150 cc. of diluted hydrochloric acid, 200 cc. of alcohol and 300 cc. of water as menstruum I, and a menstruum of 2 volumes of alcohol and 3 volumes of water as menstruum II. Reserve the first 800 cc. of percolate.

"After dissolving the soft extract in the reserve liquid, assay a portion as directed below and from the result thus obtained ascertain by calculation the amount of alkaloids in the remainder of the liquid. Test a small portion for miscibility by adding 7 cc. to a mixture of 10 cc. of glycerin and sufficient syrup to make 100 cc. If this does not produce a clear mixture, gradually add diluted hydrochloric acid, drop by drop, until a clear mixture is obtained which will remain clear for four days. Add to the remainder of the fluidextract the amount of hydrochloric acid determined as necessary by this test, and sufficient of menstruum II, to make 100 cc. of the finished fluidextract to contain 1.5 Gm. of ether-soluble alkaloids of *Ipecac.*"

Fluidextractum Rhei.—"Moderately coarse" powder replaces No. 30 powder.

Fluidextractum Rhois Glabræ.—The following formula for this fluidextract is recommended for inclusion in the U. S. P. X:

"*Rhus Glabrae* in 'coarse' powder, . . . 1000 Gm. Prepare a fluidextract by Type Process B (see page —), use a mixture of 100 cc. of glycerin, 500 cc. of alcohol and 400 cc. of water as menstruum I, and diluted alcohol as menstruum II."

Fluidextractum Rosæ.—No change.

Fluidextractum Sarsaparillæ.—No change.

Fluidextractum Scillæ.—No change.

Fluidextractum Senegæ.—"Moderately coarse" powder replaces No. 30 powder.

Fluidextractum Sennæ.—"Coarse" powder replaces No. 40 powder.

Fluidextractum Uvæ Ursi.—"Moderately coarse" powder replaces No. 30 powder.

Fluidextractum Zingiberis.—No specification is given as to variety of Ginger to be used.

OLEORESINA.

Oleoresina Aspidii.—Rubric given: "100 Gm. of Oleoresin of *Aspidium* yields not less than 24 Gm. of crude filicin."

Test and assay given:

"*Test.*—Oleoresin of Male Fern has a dark green color; specific gravity of not less than 1.00. Not less than 85 per cent. is soluble in purified petroleum benzin.

"*Assay.*—Warm the Oleoresin on a water-bath and stir until it is thoroughly mixed. Transfer 5 Gm., accurately weighed, to a flask of 200 cc. capacity, dissolve this in 40 Gm. of ether, then add 100 Gm. of an aqueous solution containing 3 Gm. of barium hydroxide, and shake vigorously for five minutes. Allow the liquids to separate and then filter off 86 Gm. of the aqueous liquid. Transfer this to a separator, add sufficient hydrochloric acid to produce a distinct acid reaction and extract with three successive portions of 30 cc., 20 cc., and 15 cc. of ether. Separate the ethereal solutions, filter, wash the filter paper with ether, evaporate, and dry the residue at 100° C. to constant weight.

"It weighs not less than 0.96 Gm. corresponding to not less than 24 per cent. of crude filicin."

Oleoresina Capsici.—Capsicum is restricted to the Mombasa and Zanzibar varieties.

"Coarse" powder is directed to replace No. 40 powder.

Test added.—"Oleoresin of Capsicum responds to the following test: Dissolve 0.2 Gm. of the Oleoresin in 50 cc. of alcohol in a stoppered flask, dilute 0.10 cc. of the clear separated solution with 140 cc. of distilled water, containing 10 per cent. of sugar. Five cc. of this dilution swallowed at once will produce a distinct sensation of pungency and the taste of Capsicum in the mouth and throat."

RESINA.

Resina Jalapæ.—Tests for solubility in chloroform and ether changed:—

20 cc. of solvent are used instead of 10 cc. and the residue in the flask and on the filter is washed with three successive portions of 5 cc. of solvent.

Resina Podophylli.—Tests for solubility in chloroform and ether changed to correspond to that under "*Resina Jalapæ.*"

TINCTURA.

General statement and type processes are not changed except as to manner of expression.

Tinctura Aconiti.—No change.

Tinctura Asafœtidæ.—No change.

Tinctura Aurantii Amari.—No change.

Tinctura Aurentii Dulcis.—No change.

Tinctura Belladonnæ Foliorum.—“Moderately coarse” powder replaces No. 60 powder.

Tinctura Benzoini.—No change.

Tinctura Benzoini Composita.—The use of either American or Oriental Storax will be permitted, provided proper standards for the so-called American “Storax” can be fixed.

Tinctura Calumbæ.—No change.

Tinctura Capsici.—“Moderately coarse” powder replaces No. 50 powder.

Testi added.—“Tincture of Capsicum responds to the following test: Mix 10 cc. of the tincture with 40 cc. of alcohol in a stoppered flask; dilute 1 cc. of the clear liquid with 140 cc. of distilled water containing 10 per cent. of sugar; 5 cc. of this dilution swallowed at once will produce a distinct sensation of pungency and the taste of Capsicum in the mouth and throat.”

Tinctura Cardamomi.—Cardamom increased from 150 Gm. to 200 Gm.

Tinctura Cardamomi Composita.—No change.

Tinctura Cinchonæ.—No change.

Tinctura Cinchonæ Composita.—Variety of Cinchona is not to be specified.

Tinctura Colchici Seminis.—“Moderately coarse” powder replaces No. 50 powder.

Tinctura Digitalis.—The fat is extracted from the digitalis before it is percolated and the menstruum for the tincture is changed from three volumes of alcohol and one of water to four volumes of alcohol and one of water.

Tinctura Ferri Chloridi.—Requirement for aging “at least three months” is omitted.

Tinctura Gambir Composita.—“Moderately coarse” powder of Gambir replaces No. 50 powder and fine powder of Cinnamon replaces No. 50 powder.

Tinctura Gentianæ Composita.—No change.

Tinctura Hyoscyami.—“Moderately coarse” powder replaces No. 60 powder.

Tinctura Kino.—No change.

Tinctura Lavandulæ Composita.—“Moderately coarse” powder replaces No. 50 powder for the various drugs in this formula.

Tinctura Limonis Corticis.—No change.

Tinctura Lobeliæ.—“Moderately coarse” powder replaces No. 50 powder.

Tinctura Myrrhæ.—No change.

Tinctura Nucis Vomicae.—Menstruum changed: 10 cc. of acetic acid is added to the first 1000 cc. of menstruum. The tincture is cooled in a proper container by exposure to a temperature of 5° C. and filtered.

Tinctura Opii.—No change.

Tinctura Opii Camphorata.—No change.

Tinctura Opii Deodorati.—The tincture is deodorized by the paraffin treatment, instead of using Purified Petroleum Benzin. Fifty Gm. of paraffin is added to the percolate, concentrated to 150 cc., heating is continued until the paraffin is entirely melted, then the mixture is beaten thoroughly and set aside to cool. When cool, a hole is pierced through the layer of paraffin, the liquid drained off, 600 cc. of water added and the mixed liquid filtered. The alcohol, 200 cc., is added to the filtered liquid and the residual paraffin and filter washed with small portions of water until the preparation measures 950 cc. This is then assayed.

Tinctura Rhei.—No change.

Tincture Rhei Aromatica.—No change.

Tinctura Scillæ.—No change.

Tinctura Stramonii.—“Moderately coarse” powder replaces No. 60 powder.

Tinctura Strophanthi.—No change.

Tinctura Tolutana.—No change.

Tinctura Valerianæ.—No change.

Tinctura Valerianæ Ammoniata.—No change.

Tinctura Veratri Viridis.—“Moderately coarse” powder replaces No. 60 powder.

Tinctura Zingiberis.—“Moderately coarse” powder replaces No. 30 powder.

The variety of Ginger is not specified, that either the African, Jamaica or Cochin varieties may be used.

Menstruum changed:—850 cc. of alcohol and 150 cc. of water replaces alcohol (95%) as the menstruum.

Residual tests are eliminated as they become of questionable value in determining the strength of the tincture, especially if the use of more than one variety of Ginger is permissible.

PROCEEDINGS OF THE LOCAL BRANCHES

"All papers presented to the Association and Branches shall become the property of the Association with the understanding that they are not to be published in any other publication prior to their publication in those of the Association, except with the consent of the Board of Directors."—Part of Chapter VI, Article VI of the By-Laws.

Article IV of Chapter VII reads: "Each local branch having not less than 50 dues-paid members of the Association, holding not less than six meetings annually with an attendance of not less than 9 members at each meeting, and the proceedings of which shall have been submitted to the JOURNAL for publication, may elect one representative to the House of Delegates."

Reports of the meetings of the Local Branches should be mailed to the Editor on the day following the meeting, if possible. Minutes should be typewritten, with wide spaces between the lines. Care should be taken to give proper names correctly, and manuscript should be signed by the reporter.

BALTIMORE.

The Baltimore Branch of the American Pharmaceutical Association and the other pharmaceutical associations of Maryland joined with various civic and charitable institutions and associations, and held a Memorial Meeting in honor of the late Dr. John F. Hancock, in the amphitheatre of the University of Maryland, on December 6, 1923, 8:15 P.M. President Engelhardt of the Baltimore Branch of the A. Ph. A. presided.

The Baltimore Branch had for its speaker, John B. Thomas; the ex-presidents of the A. Ph. A. had Geo. M. Beringer of Camden, N. J.; and the present officers of the A. Ph. A. were represented by the president, H. V. Army of New York City.

Chas. E. Meyer spoke for the Maryland Pharmaceutical Association; R. E. L. Williamson for the Baltimore Retail Druggists Association; John C. Muth for the Drug Exchange Bureau of the Merchants and Manufacturers Association; and Melvin Strassburger for the Wedgewood Club.

Dr. D. M. R. Culbreth represented the School of Pharmacy of the University of Maryland, and Dr. Timothy O. Heatwole the University of Maryland. Dean Chas. H. LaWall spoke for the Philadelphia College of Pharmacy and Science.

Brother Paul of the St. Mary's Industrial School read resolutions which were offered by his institution; as did also Ex-Senator Clarence W. Perkins for the Free Summer Excursion Society.

Dr. F. W. Bressler represented the Medical and Chirurgical Faculty, and Dr. D. W. Cathell spoke for the Baltimore Eastern Dispensary.

The secretary read letters and telegrams from pharmacists from distant parts of the country expressing regret that they could not attend the Memorial Meeting.

Each speaker, as well as the written messages, extolled the pleasing personality, the high character and many virtues of the deceased. Few men have been blessed with the long, useful, public life; the happy home life; pleasant associates in their chosen profession, and the honored memory as was Dr. Hancock. The pharmaceutical, civic and charitable institutions honored themselves in honoring his memory.

B. OLIVE COLE, *Secretary-Treasurer.*

CHICAGO.

The 138th regular meeting was called to order by President Warren at the University of Illinois School of Pharmacy Building at 8:30 P.M. on December 7, 1923, with more than 100 in attendance.

President Warren made several announcements, including that of the Nominating Committee which was directed to report nominations for the officers of the Branch, including the Committee Chairman at the January meeting. President Warren also welcomed the fifty-five members that have been added to the American Pharmaceutical Association and the Chicago Branch since