

**AMERICAN INSTITUTE OF ORGANBUILDERS**  
**ORGAN BUILDING SYLLABUS**  
Supplement of Studies in addition to on-the-job training

I. General Musical Background

A. History of music; Music literature

A basic knowledge of these subjects is highly recommended.

Suggested text:

Pogue, David, Classical Music for Dummies, Hungry Minds, 1997

Grout, Donald, A History of Western Music, W.W. Norton, 1960

B. Theory of Music; Ear training; Keyboard harmony

Some knowledge of these subjects is recommended.

Suggested text:

Music Theory Made Easy, Musical Press, 1994

C. Applied Music

Some keyboard background is highly recommended.

II. Introduction to Organ Building

1. Biggs, The Organ in Sight and Sound (record)
2. Harrison, The King of Instruments, Vol. I (record)
3. Williams, The European Organ, pp 15-24
4. Klotz, pp 11-101
5. Robertson, pp 1-10
6. Blanton, The Organ in Church Design, pp 3-68

III. History of the Organ

1. Williams, The European Organ, pp 24-260
2. Hopkins and Rimbault, pp 1-169
3. Barnes, The Contemporary American Organ, pp 1-9
4. Andersen, pp 105-264
5. Klotz, pp 135-169
6. Audsley, The Art of Organ Building, Vol. I, pp 1-86
7. Ochse, all
8. Sumner, pp 15-266
9. Keller, pp 9-26
10. Bunjes, pp 247-845
11. Blanton, The Organ in Church Design, pp 225-461

#### IV. General Woodworking

- A. Use and maintenance of tools and machinery
  1. Take advantage of any courses offered locally
  2. Feirer, Cabinetmaking and Millwork
  3. Watson, Aldrey, Hand Tools, Norton, NY, 2002
  4. Spence, Wm., Woodworking Basics-Essential Benchtop Reference, Sterling Publishing, NY 1989
  
- B. Materials: Wood, Glues, Fastenings
  1. Walker, Adam, Encyclopedia of Wood, Facts of File, 1989
  2. Hoadley, Understanding Wood, all
  3. Constantine, Know Your Woods, all
  4. Glover, pp 258-263
  
- C. Basic Joinery

Hoadley, pp 164-179
  
- D. Wood Finishing
  1. Hoadley, pp 180-189
  2. Glover, pp 267-270
  3. Flexner, Bob, Understanding Wood Finishing
  4. Dresdner, Michael, Woodfinishing Book, Taunton Press, 1992

#### V. Acoustics and Architecture

1. Culver, all
2. Knutsen and Harris, all
3. Bolt, Beranek and Newman, all
4. Klotz, pp 102-116
5. Andersen, pp 297-343
6. Sumner, pp 257-266
7. Barnes, pp 340-344
8. Blanton, The Organ in Church Design, pp 69-118

#### VI. Metalworking

- A. Materials
  
- B. Tools

Begeman, Manufacturing Processes, Wiley & Sons, 1963

## VII. Technical Design and Execution

- A. Basic Drafting  
Some knowledge of basic drafting is recommended.  
Segel, Drafting Made Simple
- B. Practical Mathematics  
Some knowledge recommended.  
Glover, Pocket Reference
- C. Strength of Materials
  1. J.P. Hartog, Strength of Materials, Dover, 1977
  2. Hoadley, pp 106-135
  3. Glover, Pocket Reference
- D. Mechanical Design, Layout, Structure
  1. Andersen, pp 92-104
  2. Hopkins and Rimbault, pp 287-306 and pp 9-45
  3. J.E. Gordon, Structures..., DaCapo Press, 1978
  4. Bunjes, pp 247-436
- E. Case Design and Visual Layout
  1. Audsley, The Art of Organbuilding, Vol. I, pp 125-183
  2. Hopkins and Rimbault, pp 278-286
  3. Andersen, pp 265-296
  4. Blanton, The Organ in Church Design, pp 119-224
  5. Blanton, The Revival of the Organ Case, all

## VIII. Tonal Design

- A. Stoptlist
  1. Robertson, pp 104-131, 280-324
  2. Klais-Blanchard, The Organ Stoptlist, all
  3. Barnes, Cont. American Organ, 7<sup>th</sup> ed., pp 228-329
  4. Andersen, pp 31-57
  5. Bunjes, pp 63-231
  6. Hopkins and Rimbault, par.530-675 (pp 128-150)
  7. Audsley, Organ Stops, all
  8. Jamison, all
  9. Fesperman, pp 26-39, 44-85
- B. Scaling
  1. Audsley, The Art...Vol I, pp 567-586
  2. Davy, pp 45-57
  3. Hopkins-Rimbault, chap. Xxv, pp 151-159
  4. Andersen, pp 36-56
  5. AIO convention monographs

- C. Voicing: Flues
  1. Barnes, pp 85-90
  2. Monette, all
  3. Audsley, Vol. I, p378; Vol. II, pp 623-632
  4. Robertson, pp 241-258
  
- D. Voicing: Reeds
  1. Bonavia-Hunt, The Organ Reed, all
  2. Sumner, pp 271-276
  3. Robertson, pp 258-260
  
- E. Tuning
  1. Isacoff, Stuart, Temperament, A. Knopf, 1961, all
  2. Smith, all
  3. Robertson, pp 260-268
  4. Jorgensen, Tuning, all
  5. ISO Information, section on tuning

## IX. Chest Building

- A. Electro-Mechanical
  1. Barnes, Chapter 10
  2. Lectures from '73 AIO Convention
- B. Pitman and Ventil
  1. Barnes, Contemp. Amer. Organ, pp 263-416, and Chap. 10
  2. Andersen, Chapter 5
  3. Lectures from '73 AIO Convention
- C. Slider
  1. Audsley, Vol II, pp 195-228 and p.212
  2. Hopkins and Rimbault, pp 27-46
  3. ISO Information, section F,2
  4. Lectures from '73 AIO Convention

## X. Pipe Making

- A. Metal
  1. Hopkins and Rimbault, pp 96-100
  2. Robertson, pp 84-87
  3. Audsley, Chapter 35
  4. Barnes, pp 29-31
- B. Flues
  1. Hopkins and Rimbault, pp 101-119
  2. Robertson, pp 88-92
  3. Sumner, pp 280-281
  4. Audsley, Chapter 36
  5. Barnes, pp 31-36

- C. Reeds
  - 1. Bonavia-Hunt, The Organ Reed, all
  - 2. Audsley, Chapter 34
  - 3. Barnes, pp 55-57
  - 4. Robertson, pp 92-97
- D. Wood Pipes
  - 1. Audsley, Chapter 34
  - 2. Barnes, pp 40-43
  - 3. Sumner, pp 277-279
  - 4. Hopkins and Rimbault, pp 101-119
  - 5. Robertson, pp 97-103

## XI. Console and Action

- A. Tracker
  - 1. Hopkins and Rimbault, pp 47-58
  - 2. Audsley, Chapter 20
  - 3. Barnes, pp 186-189
- B. Electric
  - 1. Barnes, pp 192-204
  - 2. Hopkins and Rimbault, pp 69-87
  - 3. Fogiel and Kybett, Electronics- a Self-Teach Guide, Wiley, '86
  - 4. OSI Catalog
  - 5. Glover, pp 109-150
- C. Pneumatic
  - 1. Audsley, Chapter 31
  - 2. Barnes, p.189
  - 3. Hopkins and Rimbault, pp 59-62
  - 4. Sumner, pp 337-348
- D. Keymaking
  - 1. Audsley, Chapter 19
  - 2. Hopkins and Rimbault, pp 47-50
- E. Stop Actions
  - 1. Audsley, Chapter 30
  - 2. Hopkins and Rimbault, pp 63-66
- F. Combination Actions
  - 1. Audsley, Chapter 32
  - 2. Barnes, p.206
  - 3. Sumner, pp 358-362
  - 4. Hopkins and Rimbault, pp 88-90
- G. Pedalboards
  - 1. Audsley, Chapter 21
  - 2. Barnes, p.201
  - 3. Hopkins and Rimbault, pp 47-50
  - 4. Robertson, pp 178-179

XII. Wind Systems

1. Hopkins and Rimbault, pp 9-26
2. Klotz, pp 12-17
3. Audsley, pp 675-704
4. Robertson, pp 156-174

XIII. Business Administration and Management

We suggest taking a general business course at the nearest college.

1. Lasser, all
2. Bygrave, Wm., Portable MBA in Entrepreneurship, Wiley, '97

XIV. Organ Servicing (see also tuning and related subjects)

1. Hopkins and Rimbault, pp 201-213
2. Klotz, pp 122-129 (except part on cone-tuning)
3. Andersen, pp 323-336
4. Skinner, The Composition of the Organ, pp 227-229

XV. Restoration

1. OHS Guidelines
2. Andersen, pp 338-342
3. ISO Publications
4. The Tracker, Vol.46, #3 (July, '02), pp 22-34

AIO Exam Committee, Revised September, 2002