

Advanced Orchestration (MUS4204)

Spring 2019 Syllabus

Dr. Ben Johansen
McCrary Music Building, 233
B_Johansen (email)

[Meeting Time/Place]

Wednesdays 9:30-10:45am in Alinea ([Marrs McLean Science Building Room 330](#)).

[Required Attendance Outside of Scheduled Class Time]

None.

[Course Objectives]

 By the end of this course, you will be able to:

- draw upon perspectives outside of music to inspire creative orchestration
- discover, catalog, and use orchestration techniques of others to compose/orchestrate

[Course Materials]

All course materials will be provided for you in Box and/or via library reserves.

[Grading]

Take risks, Search, and be Curious.

25% - Class Attendance

25% - Listening and Reading Assignments

50% - Projects

A = 90-100	B = 83-86	C+ = 77-79	C- = 70-72
B+ = 87-89	B- = 80-82	C = 73-76	F = 0-69

[Schedule] TBD

Section1	Location	Topic	Project Due
Wed 01/16	Alinea	Intro to Class	
Wed 01/23	Alinea	Transcription ... Floral Design Intro	Project#01
Wed 01/30	Alinea	Discuss Project#02	Project#02
Wed 02/06	Moody Lib	Look at Special Collections Architecture Books	(none)
Wed 02/13	Alinea	Discuss Project#03	Project#03
Wed 02/20	Alinea	Discuss Project#04	Project#04
Wed 02/27			
Wed 03/06			
Wed 03/13	NO CLASS	(Spring Break)	
Wed 03/20			
Wed 03/27			
Wed 04/03			
Wed 04/10			
Wed 04/17			
Wed 04/24			
Wed 05/01			

[Attendance]

The following is straight from the School of Music Undergraduate Handbook (I made the last sentence red):

School of Music policy requires that to earn credit in a course a student must be officially enrolled by the end of the second full week of the semester and attend at least 75% of all class meetings. Faculty members may establish additional attendance requirements as outlined in course syllabi. Any student who is not present for at least 75% of the scheduled class sessions for any course will automatically receive a grade of "F" in the course. **Any University-related activity necessitating an absence from class will count as an absence when determining whether a student has attended the required 75% of class meetings.**

[Academic Success]

We as faculty members have high academic expectations of you and believe every student who has been admitted to Baylor can be successful. I am a vigilant professor and will notice if you are struggling in my course. If your academic performance in this class is substandard, I will submit an Academic Progress Report to the Success Center during the sixth week of the semester. I will work to help you get the help you need to learn more fully, and I can assist you in finding the resources you need beyond my course. Familiarize yourself with the culture of success we have at Baylor by stopping by the Paul L. Foster Success Center in Sid Richardson or by going to: <http://www.baylor.edu/successcenter/>. Even if you don't need help, you can get involved by tutoring other students in the future or by telling a hall mate how and where to get help.

[Academic Integrity]

Plagiarism or any form of cheating involves a breach of student-teacher trust. This means that any work submitted under your name is expected to be your own, neither composed by anyone else as a whole or in part, nor handed over to another person for complete or partial revision. Be sure to document all ideas that are not your own. Instances of plagiarism or any other act of academic dishonesty will be reported to the Honor Council and may result in failure of the course. Not understanding plagiarism is not an excuse. As a Baylor student, I expect you to be intimately familiar with the Honor Code at: <http://www.baylor.edu/honorcode/>

[Students Needing Accommodations]

Any student who needs academic accommodations related to a documented disability should inform me immediately at the beginning of the semester. You are required to obtain appropriate documentation and information regarding accommodations from the Office of Access and Learning Accommodation (OALA). Contact Information: (254) 710-3605 - Paul L. Foster Success Center, 1st floor on the East Wing of Sid Richardson.

[Baylor University Title IX]

Sexual and Gender-Based Harassment and Interpersonal Violence Policy

Baylor University does not discriminate on the basis of sex or gender in any of its education or employment programs and activities, and it does not tolerate discrimination or harassment on the basis of sex or gender. This policy prohibits sexual and gender-based harassment, sexual assault, sexual exploitation, stalking, intimate partner violence, and retaliation (collectively referred to as prohibited conduct). For more information on how to report or to learn more about our policy and process, please visit www.baylor.edu/titleix. You may also contact the Title IX Office directly by phone, (254) 710-8454, or email, TitleIX_Coordinator@baylor.edu.

The Title IX office understands the sensitive nature of these situations and can provide information about available on- and off-campus resources, such as counseling and psychological services, medical treatment, academic support, university housing, and other forms of assistance that may be available. Staff members at the office can also explain your rights and procedural options if you contact the Title IX Office. You will not be required to share your experience.

If you or someone you know feels unsafe or may be in imminent danger, please call the Baylor Police Department (254-710-2222) or Waco Police Department (9-1-1) immediately.

[Military Student Advisory]

Veterans and active duty military personnel are welcomed and encouraged to communicate, in advance if possible, any special circumstances (e.g., upcoming deployment, drill requirements, disability accommodations). You are also encouraged to visit the VETS Program Office with any questions at (254) 710-7264.

Project #01 • Transcription

Book of Visions: "1 - A Table of Night" by Einojuhani Rautavaara (1928-2016)

- [Score](#)
- [Recording](#) (read the liner notes)

By hand or using notation software, transcribe the following for piano performance (not a reduction for study):

- beginning to downbeat of 34
- measure 54 to the downbeat of 68

Project #02 • Floral Design

This project has two parts.

Email me your paper **and** bring a copy to class (print or on your computer) along with your floral arrangement for the discussion.

Part 1 - Research:

Write a paper (400+ words) containing concepts/content which you were unaware of before this project. You should basically have three main body paragraphs:

1. **Two** floral design practices (methods, techniques, theories, etc.) that practically parallel orchestration practices (methods, techniques, processes, etc.)
 - ▶ you must find these in floral design (arrangement, theory, etc.) **books**; call number SB 449 has many, but there may be more in the library in other locations
 - ▶ you must **reference your sources**
2. **One** floral design practice you discover by visiting a stand-alone floral shop (not a grocery store like HEB or Walmart) - once again, this must be a **new** observation/finding to you.

Part 2 - Application:

Create a floral arrangement and bring it to class

- ▶ it can be any size
- ▶ you **must** be able to discuss how what you chose to do in the arrangement parallels choices you could make in orchestrating a musical work
- ▶ you need not buy any flowers to do this (though you may) - you may make it out of whatever you can find outside naturally

Project #03 • Architecture

This project has two parts.

Email me your paper **and** bring a copy to class (print or on your computer) along with your sketch+proposal to discuss during class.

Part 1 - Research:

Write a paper (400+ words) containing concepts/content which you were unaware of (or had never before consciously connected) before this project. You should basically have three main body paragraphs:

1. **Two** architectural practices (methods, techniques, theories, etc.) that practically parallel orchestration practices (methods, techniques, processes, etc.)
 - ▶ you must **reference your sources**
2. **One** architectural practice that practically parallels orchestration practices that you discover by observing architecture in person (around Baylor, Waco, or somewhere else) - once again, this must be a **new** observation/realization to you. You may include a photo of the building if you choose.

Part 2 - Application:

Sketch a design of a building and **propose ways in which you could compose a work** for large ensemble that will represent the sketch.

- ▶ Have your proposal in written form (any format you please ... it need not be formal, it just needs to be something you can turn in).
- ▶ I suggest the building sketch be done by hand (pencil, pen, colored pencils, paper, etc.) rather than by computer; nevertheless, if you **know** you will be met with less friction using a 3d design program such as Sketchup, you may use a computer.

Project #04 • Orchestration Exploration

Symphony No.4 (2014-15) by James Macmillan

- [Score on reserve in behind the Crouch Library desk.](#)
- [Streaming audio on NAXOS \(BBC Scottish Symphony Orchestra / Donald Runnicles\)](#)
 - [The same recording is on YouTube](#) but the ads ruin the experience.

Study Macmillan's fourth symphony through an orchestration lens (*mostly* vertical). **Try to remove yourself from your habitual tendencies** of analyzing the form, judging the melodic content, critically listening to tuning and performance success, mentally transcribing rhythms, and gauging how much you like his compositional choices possibly based on your aural prejudices. **Instead, free yourself up** to study nothing but how Macmillan applies his many years of experience orchestrating (using either traditionally successful techniques or creating freshly imaginative textures and timbres) and decide which of his decisions were successful and which were not.

Make a photo copy of the sections of the score that contain answers to the five exercises below:

1. Using Blatter's table on the second to last page of this syllabus as inspiration: find and self define/describe at least **three** very different subgroups of the orchestra that Macmillan established in order to create unique textures or timbres.
2. Find a section and label where clearly a **group** of instruments has the melody and clearly another group of instruments creates the accompaniment to that melody.
 - Is there a **group** of instruments in that section that make up a secondary melody?
3. Find a **unison doubling** that you find creates an effective or compelling timbre.
 - Does this achieve something different than if octave doubling – rather than unison doubling – would have also been utilized in this passage?
4. Find a section where string and/or wind instruments are combined and serve a **percussive** role (as if they are members of the percussion family rather than members of string or wind families).
5. Find a section that has four ideas going on at once that you can clearly hear all four well. What orchestration techniques did Macmillan use to make that work (to ensure one section does not cover up others, allowing for a clear understanding of all that is going on simultaneously, etc.)

Elementary Orchestration Quotes:

Walter Piston, *Orchestration*, New York: W. W. Norton & Company, Inc. (1955), pg. vii.

The technical equipment of both composer and orchestrator must include a thorough knowledge of the individual instruments, their capabilities and characteristics, and a mental conception of the sound of each. Then the effects and resources of instrumental combination must be learned, involving such matters as balance of tone, mixed tone colors, clarity in texture, and the like. Finally, the orchestra is to be sensed as itself an individual instrument, flexibly employed to present the music, in form and content, with fidelity and effectiveness.

Walter Piston, *Orchestration*, New York: W.W. Norton & Company, Inc. (1955), pg. vii.

The importance of a thorough knowledge of the instruments cannot be too strongly emphasized. Good writing for the instruments is indisputably the largest single factor in good orchestration. One might with considerable reason declare that if the parts are well written for the separate instruments the ensemble is bound to sound well, and that if the parts are poorly suited to the instruments the total effect is bound to be unsatisfactory. Insufficient acquaintance with the instruments is by far the most outstanding defect to be noted in the scores of inexperienced composers. The composer or specialist in orchestration must constantly and perpetually keep adding to his store of information in this department of his technique, gathering data from every conceivable source.

Analysis of scores is next in importance, and it should become a daily habit. Sections taken for analysis will be progressively longer compared with the short fragments used in the first stages, thus affording the opportunity of observing the perpetual changes in texture and distribution, and the expansion and contraction of the instrumental forces for dynamic purposes. Eventually, a whole movement will be studied especially for the application of principles of unity and variety through orchestration. The student is advised to exercise patience, and to select for his early analyses only those passages that are clear in their texture, unless he has the help and advice of a more experienced person. Above all, he must guard against being satisfied with a hasty and superficial analysis.

...

Qualities to seek in orchestration are clarity, naturalness, beauty of sound, fidelity to the original musical thought, and an imaginative scoring of renewing interest without fussiness. The orchestration should have its origin in the musical material. It should not be composed of admired sound combinations copied from the works of others. Formulas and “devices” are the death of creative orchestration.

Samuel Adler, *The Study of Orchestration*, New York: W.W. Norton & Company, Inc. (2002), pg. 4.

The goal of this book is to acquaint the reader with the distinctive, particular sound each instrument makes alone and in combination with other instruments, as well as with the techniques used to produce these sounds. Acquiring this knowledge will enable a composer to write down a particular tone color in score for realization in performance when it is heard in the inner ear (or mind). Walter Piston put it succinctly: “You’ve got to hear what you put on that page.” Let us call this “hearing mentally.”

Samuel Adler, *The Study of Orchestration*, New York: W.W. Norton & Company, Inc. (2002), pg. 6.

The art of orchestration today is a sophisticated and intricate one. It is also highly individual, depending greatly on the taste and even the prejudice of the composer or orchestrator. Realizing this, one should master the techniques of writing for each instrument and listen carefully to the various combinations. A student can learn much from reducing a full score to its bare essentials so that it may be performed on the piano, or from “blowing up” a score from a piano part. This kind of activity has been common practice for well over one hundred years and offers invaluable lessons about clarity and coloration in the orchestra. Such fabulous orchestrators as Ravel, Debussy, and Stravinsky often composed their most advanced orchestral scores at the piano and then orchestrated them, whereas Webern and Berg zealously made piano arrangements of huge orchestral scores by Schoenberg and Mahler in order to make them easier to study.

Samuel Adler, *The Study of Orchestration*, New York: W.W. Norton & Company, Inc. (2002), pg. 547.

Scoring for orchestra is thinking for orchestra. When dealing with a composite instrument like the orchestra you must be completely familiar with the character and quality of the orchestra’s components: the range and limitations of each instrument as well as how the instrument will sound alone and in combination with other instruments. The timbre, strength, and texture of every segment of the instrument’s range become crucial when you are creating orchestral color combinations.

The art critic Jacques Maroges has said, “The greatest colorists have always obtained the maximum brilliance and vibration with a minimum of color.” ... Inexperienced orchestrators sometimes use such a great variety of different effects, creating a constant flux of color and texture, that the structure of the work is often put in jeopardy. We will see that carefully balancing orchestral colors and defining the musical elements by means of the orchestration instead will help to clarify musical organization and yield the very best orchestral sound. The great orchestrators of the past and present also realized that a listener can tire very easily of the monotony created by hearing all orchestral choirs play together for too long a time in a seemingly never-ending orchestral tutti. But inexperienced orchestrators often fall into this very trap.

One of the major functions of the orchestration of an extended work is to help clarify the form of the entire piece. ... we will examine how some of the great orchestrators have scored the most effective tutti; sacred foreground, middle ground, and background material; handled a purely polyphonic section; and dealt with newer techniques, such as pointillistic or *Klangfarben* scoring and pitch colorings ...

Samuel Adler, *The Study of Orchestration*, New York: W.W. Norton & Company, Inc. (2002), pg. 666.

Transcribing of a piece of music from one medium to another is very much like translating a poem from one language to another. Although speakers of the original language will invariably claim that a poem can never be translated successfully and loses its essence in the process, people who do not speak the original tongue will benefit by being able to understand something that was beyond their grasp before the transformation was accomplished. In some cases great poets of one language undertake to translate poems from another, and in doing so create magnificent masterpieces.

In music as well as in poetry, the arguments for and against transcription have been with us for many years.

Alfred Blatter, *Instrumentation and Orchestration*, New York: Schirmer Books (1997), pg. 420-421.

You should consider the whole ensemble as being composed of various subgroups of instruments which can be combined and recombined in many ways. As a stimulus to thinking, here are some of the ways in which this might be done. Note that each combination has a commonly shared tone quality that somehow defines the group. To assist in remembering or imagining the sound of each group, fanciful names have been used to describe the sound quality for each. You would, of course, create your own groups with your own descriptions. These groups do not include the strings. The strings by their very natures can be added to any of these groups without materially effecting the character of the group's sound simply by selecting the appropriate bowing, string, and register. Such is the strength and value of the strings!

<i>Group's Description</i>	<i>Group's Composition</i>
Dark and smooth	all the clarinets (from the Eb through the contrabasses), and the marimba
Dark and mellow	cornets, flugelhorns, horns, euphoniums, tubas, marimba, and vibraphone
Dark and reedy	horns, euphoniums, tubas, saxophones (at softer dynamics), bassoons, marimba, vibraphone, and tam-tam
Dark and full	all flutes in low register (no piccolo), English horn, bassoons, low-register clarinets, low-register saxophones, horns, muted trombones, bass drum, tom-toms, tam-tam, and timpani
Neutral and full	all flutes in the low register, clarinets, cornets, muted horns, euphoniums, and tubas
Bright and smooth	all of the flutes, plus the clarinets above the break, the upper range of the saxophones, the muted horns, and the vibraphone
Bright and clear	trumpets, trombones, tubas, triangles, glockenspiel, and timpani
Bright and full	high-register flutes, high-register clarinets, oboes, high-register saxophones, trumpets, trombones, tubas, cymbals, triangles, snare drums, glockenspiel, xylophone, and chimes
Nasal and bright	oboes, all saxophones, English horn, bassoons, chalumeau register of the clarinets, harmon-muted brasses, and stopped horns
Nasal and dark	oboes, English horn, bassoons, saxophones, muted brasses, and temple blocks
Percussive	all percussion instruments, staccatos played on muted brasses and woodwinds

As an example of how strings can be added one could add lower register cellos and contrabasses to the dark and mellow group but one would probably add all strings, pizzicato, to the percussive group. Ponticello violas and upper register cellos could become valuable members of the nasal and dark group.

These eleven sets of instrumental colors may be mixed, combined, or contrasted in a wide variety of ways. Obviously, other groupings could be assembled. In fact, an orchestrator should define a new list of groups for each orchestration project.

It is of course not necessary to employ all of the instruments from one group to suggest the sound associated with that group any more than it is necessary to have all pitches of a dominant seventh present to suggest the functioning of the chord. Thus, one can see that this approach to the utilization of instrumental qualities has an almost limitless number of possible variations inherent in its organization. Its only limit is the imagination of the orchestrator.

found at the following site January 2019:

<http://www.professionalorchestration.com/white-papers/teaching-orchestration/>

STARTING AT THE BEGINNING, NOT THE END GAME

When Nicolai Rimsky-Korsakov wrote, "Orchestration is composition," he was describing the end game of the learning process which is really a process of discovery, cataloging and usage.

Music writers understand this because in the very beginning they hear a sound in their head. It could be a color combination, or the harmonic way a passage is written, or both. They like the sound so much they want to use it in their own compositions. So begins the search. Maybe it's listening to the recording over and over until they figure it out. If a score is available, they'll get the score and pore over it until they find the sound heard in their imagination.

That's the first step - discovery.

Next is defining just what went into making that sound, "that sound." So begins the analysis of the harmony and the instrumental combinations and logging down what "it" is and how "it" was achieved.

That's the second step - cataloging.

Enter musical imagination. Having discovered and cataloged, one must now imagine different scenarios and harmonies where this device (combination) might work. The real experimentation takes place in the mind. If the writer has an excellent set of orchestral samples, he can experiment to approximate with sonic snapshots of how this device might work. But the library has to be of superb quality, otherwise, miscalculations will be made.

Now comes the writing of the thing - *commitment*. Once on the score page, it goes to parts, then to the musician's desks where it's played and ultimately, the audience hears it.

That's the third step - usage.

Only as these steps are repeated, and a writer has enough devices discovered, cataloged and ready for usage, does orchestration become composition.¹

This is the path on which orchestration is learned. But it's not where the teaching of orchestration begins.

¹ Put differently, this three-step process is also a way of decision making. DCA (discover, catalog, apply) is similar to a process put forth by Air Force Colonel John Boyd called the OODA Loop. The first O stands for Observation, the second Orientation. D is for Decision and A is for Action. Observation is data collection through the senses. Orientation analyzes the information to form a current view or perspective. Decision is an action plan and Action puts the decision into play. Orchestration titles can cover Observation and Orientation as long as the writer studies in cooperation with the text. D and A are up to the writer. Decision comes through creating a series of sketch scores. Action is the final score whose parts go onto the music stands.