



## The Physics Behind Music PH1090, 3 Credits

A survey of basic principles of Physics which make our music possible, including topics from:

Waves

Non-linear Physics and Chaos

Atomic and Molecular Physics

Statistical Mechanics

Acoustics

Magnetism

Magnetic Fields and Magnetic

Induction

Electric Fields and Capacitance

Electronic Music

Mechanical and Optical Sensors

Be Smart.



Free Online Application

[www.mtu.edu](http://www.mtu.edu)

[mtu4u@mtu.edu](mailto:mtu4u@mtu.edu) 888-MTU-1885 906-487-2335

**MichiganTech**

Create the Future

Michigan Technological University

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Houghton, MI 49931-1295

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PH1090 Course Instructor

Michigan Technological University is an equal opportunity educational institution/equal opportunity employer.

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Create the Future

The  
Physics  
Behind  
Music

Online

## Online Learning

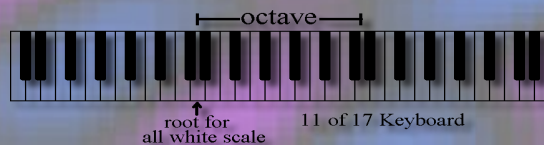
The Physics Behind Music is available online and is offered by Michigan Tech at the advanced High School / Beginning College level. High School students may enroll in the course individually or as part of the dual enrollment program, which allows high school students to complete both high school and college classes at the same time.

The course is a 3-credit college-level algebra-based course. This means you do not need to have taken any calculus, but a strong background in algebra and trigonometry is expected.

If you earn a "C" or better in The Physics Behind Music, the course will count for college credit at Michigan Tech or may be transferable to other universities.

## How does it work?

Students watch recorded, online lectures and demonstrations over the internet at a time of day of their choosing and complete a short online quiz after each lecture. Students can "meet" with their instructors and other students through chat rooms, email, and other arranged methods for questions and course discussion. Exams are traditional written exams which can be done at MTU or administered by a local proctor such as a high school teacher, librarian, or principal.



## What is the schedule?

The course follows Michigan Tech's academic calendar. The Physics Behind Music is offered online in the Spring and Summer semesters. For 2008-2009 the schedule is:

Spring Semester (January 14 - May 2, 2008)  
Summer Semester (May 12 - August 15, 2008)  
plus Spring and Summer 2009

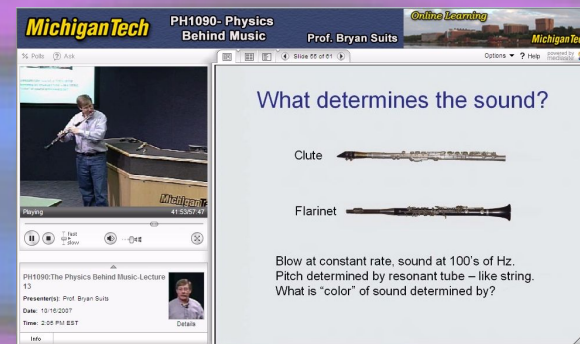
## Can I get extra help?

Email contacts with the instructor will usually be answered within 24 hours. If additional contact is needed, it will be arranged.

## What is the cost?

The cost is 3-credits tuition, (\$918 in-state, \$2094 out-of-state in 2007-8) plus applicable fees (\$114 in 2008). Under the dual-enrollment plan, your school may pay for part of your tuition if you have exhausted all possible alternative courses at your school.

Dual enrolled students should talk to their school administrator to find out the specific cost. A bill is mailed directly to you reflecting the entire cost of the course. You may need to coordinate payments to Michigan Tech with your school administrator if your district has agreed to share the cost.



## How do I register?

You can register for this and other online courses at [www.techonline.mtu.edu](http://www.techonline.mtu.edu).

For dual enrolled students, your school must also send a copy of your transcripts and a letter stating that you are eligible for dual enrollment.

## How do I get ready?

Make sure you have adequate access to the internet and appropriate equipment (and a back-up plan). For hardware requirements, see [www.techonline.mtu.edu](http://www.techonline.mtu.edu).

## Questions? Contact

Your school's administrator and/or:



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**(906) 487-2093**