

**HONOR
SEMINARS**
of
Metropolitan
Dayton

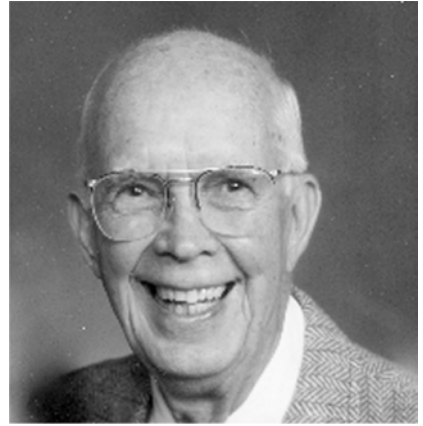
**2010 – 2011
Forty Ninth
Annual Report**

In Memoriam
This Forty Ninth Annual Report is dedicated to



Dr. Matthew Kabrisky
1931 - 2011

Dr. Matthew Kabrisky, an outstanding friend of Honor Seminars of Metropolitan Dayton, served as a faculty lecturer for both the senior and junior Honor Seminar classes for forty years, presenting usually two or more seminars to each class every year. We are most appreciative for his loyal support and his excellent seminars. As a professor at The Air Force Institute of Technology his teaching and research activities were principally in the fields of sensory information processing, pattern recognition, machine intelligence and mathematical modeling of brain computation. His seminars that drew from this experience stimulated great interest from both the senior and junior students. He served as the Keynote Speaker at 25th HSMD Anniversary celebration and on the Board of Directors since 1992.



Mr. R. Max Peterson
1920 - 2010

Mr. R. Max Peterson, serving as a charter member of the Honor Seminars of Metropolitan Dayton Board of Directors, contributed very significantly to establishing and advancing the objectives and goals for this organization from 1962 to 2002, and remained a great friend and booster of HSMD for the rest of his life. His dedication and numerous contributions to the Honor Seminars were exemplified by his leadership as Chairman of the Community Relations Committee from 1962 to 1987. His faithful guiding counsel was invaluable to the Honor Seminars programs that have inspired almost 3000 students since its inception.

***Honor Seminars
of
Metropolitan Dayton, Inc.***

***Forty Ninth
Annual Report***

2010 – 2011

Honor Seminars of Metropolitan Dayton, Inc

C/O Affiliate Societies Council
4801 Springfield Street

Dayton, OH 45431

FOREWORD

The Honor Seminars of Metropolitan Dayton was organized in 1962 as a non-profit corporation having as its goal the function of providing outstanding area high school students the opportunity to learn from and interact with highly qualified professional people from the greater Dayton area. To accomplish this goal, two separate seminar programs are established each year, one for selected juniors and one for these same students as they become seniors (i.e. each student participates for a two-year period), as an extracurricular activity. Effective use of the community resources is thereby made to develop the student who has demonstrated the desire and ability for high achievement. These seminars have been directed toward the understanding and appreciation of advances in modern sciences, technologies, and the humanities. They are meant to provide enrichment to the students' background, to aid in the development of independent thinking and the stimulation of individual creativity, and to lend assistance in defining personal collegiate and career objectives. This annual report represents completion of 49 years of service to the community.

In 1973, the Honor Seminars of Metropolitan Dayton, Inc. joined the Affiliate Societies Council (ASC) of Dayton to provide Honor Seminars with a permanent headquarters address. ASC is an independent, tax-exempt, 501c3 organization.

Seminar programs in recent years have been directed toward increased participation of the students and have emphasized discussions of the topics with seminar leaders. This mode of operation has helped to make the contents of the seminars meaningful to the students and to satisfy their intellectual curiosities. Some of the seminars are conducted within the working environments of the individual seminar leaders, permitting them to use a variety of demonstration materials pertinent to their profession and permitting the students to acquire deeper insights into the functions performed by these professionals in today's society. Honor Seminars is an educational program established in the spirit of voluntary participation. All operations of the program are conducted without compensation or honoraria for the service of the individuals. The continued success of the Honor Seminars program is the direct result of the strength of the seminar leaders who constitute the faculty and the foresight of the officers and members of the Board of Directors. These professional individuals give gladly of their time and efforts to bring their knowledge and experience in a wide variety of fields. Their individual contributions are pointed out in this annual report of the activities for 2010-2011.

Students of exceptional ability and promise are selected on an impartial basis from the public and private schools of the greater Dayton metropolitan area. The Principals and Counselors of these schools

provide nominations of candidates prior to the student's junior year. Also, qualified students may self-nominate through a process identified on the HSMD website <http://www.wright.edu/~dan.voss/hsmd/>. An experienced Admissions Committee determines the selection of students from those nominations. Those students who displayed and maintained through their weekly attendance the very highest level of interest, initiative, talent, and scholarly activity are listed in this report of activities.

The Honor Seminars of Metropolitan Dayton, Inc. serves a unique and fundamental need for the Montgomery-Greene-Miami County community. The cooperation and backing of the companies and institutions with which the seminar leaders and board members are affiliated have been substantial. The generous financial support in this community, provided by the many supporters (listed at the end of the report) is appreciated and indicative of their desire to maintain this exceptional opportunity for our outstanding high school students. The Dayton Area Chamber of Commerce recognizes The Honor Seminars of Metropolitan Dayton, Inc., as an ongoing benefit to the community which merits contributory support from sponsoring organizations.

Exceptional Student Scholarship

Honor Seminars of Metropolitan Dayton implemented the new Exceptional Student Scholarship for 2011 that is awarded to a selected HSMD participant that has been active in the program and has demonstrated outstanding academic performance, as well as extracurricular engagement. This \$1,000 scholarship was sponsored by Battelle Memorial Institute.

Highlights and Innovations

In keeping with the Honor Seminars of Metropolitan Dayton objective of providing unique educational and experiential opportunities as a complement to high school curricula, the following activities are highlighted:

- A private Facebook group (invitation only) was created and is used to facilitate communication and collaboration among seminar participants.
- Skype™ two-way video conferencing was used to host a leading researcher in the field of transpersonal psychology from Palo Alto, CA. Also, Adobe two-way video conferencing was used to host an operating systems developer from Microsoft Inc. In addition to allowing access to a broader range of experts, this approach also provides the students with an actual experience in using technology to enrich the educational environment.

- HSMD was privileged to host a presentation by an Elder of the Waitaha Nation on the cultural anthropology of his people, the Maori (the native people of New Zealand). His inspiring message was very well received and relevant to the youth of any culture.
- The continued partnership with the *Boonshoft Museum of Discovery* included planetarium presentations, as well as a tour of the observatory. The Boonshoft Museum is a tremendous community asset, and integrating its offerings into the program enriches participant experience.
- In partnership with the *Wright State University* (WSU) Boonshoft School of Medicine, Department of Pharmacology and Toxicology, HSMD included seminars presented by graduate and undergraduate students. Participants related very well to these student presenters.
- The Seniors visited the WSU Pharmacology/Toxicology Labs where graduate students made short presentations on their research work (poster sessions), and then provided guided tours of the laboratories. This was a “win-win” as seminar participants got to hear about and see actual research work, while the WSU students had the opportunity to practice their poster session skills for upcoming conferences.
- The Seniors traveled to the *University of Dayton* to learn about technologies associated with music and got “hands-on” in the music laboratory to compose their own musical works using “Garage Band.”™

Senior Participants 2010 – 2011

Bellbrook High School

Stephanie R. Lake Bellbrook OH
Vaama V. Patel Bellbrook OH

Carroll High School

Jennifer L. Barbadora Beavercreek OH
John P. Hollkamp Fairborn OH
Juliann K. Leny Dayton OH
Darren J. Nash Kettering OH
Katherine A. Ollier Beavercreek OH
Graeham A. Rieman Xenia OH
Nicole M. Thomas Beavercreek OH

Centerville High School

Emily A. Briskin Centerville OH
Seth Cazzell Centerville OH
Michael Jacobs Dayton OH
Juho Lee Centerville OH
Aaron Zhao Centerville OH

Fairborn High School

Joselito C. Buendia Jr. Fairborn OH
Joseph S. Lorenzetti Fairborn OH

Miamisburg High School

Jad S. Mubaslat Miamisburg OH
Emma K. Pevoar Miamisburg OH

Oakwood High School

Tucker Jones Dayton OH
Philip Sizek Dayton OH

Stebbins High School

Joseph B. Boggs Riverside OH
Matthew D. Young Dayton OH

The Miami Valley Academy

Sarah Caughey Kettering OH
Sophia Hu Dayton OH

Valley View High School

Charlotte J. Lindstrom Farmersville OH
Kelly B. Scarberry Farmersville OH

Vandalia-Butler High School

Tyler B. Carter Vandalia OH

Wayne High School

Komal Bansal Huber Heights OH

Seminars of the Senior Participants

Dr. Michael Eismann

Air Force Research Laboratory

Spectral Remote Sensing

Ms. Nancy Thornburgh

Private Practice

Our Legal System/Lawyers

Dr. Rex Caswell

LexisNexis

Personality Types...What's Yours?

Ms. Brenda Boyd

Antioch University

Applying Technology in Education

Mr. Matt Joseph

City of Dayton

Politics/Local Government

Dr. Franklin Cox

Wright State University

Relationship Between Music & Mathematics

Ms. Terry Oroszi

Wright State University

Toxicology/Pharmacology

Dr. John Miller

Air Force Institute of Technology

Operations Research

Dr. Peter Torvik

Air Force Institute of Technology
(Ret)

Engineering Disasters

Dr. Ryan Rominger

Institute of Transpersonal
Psychology

Psychology & Non-ordinary Experiences

Mr. Patrick Hansford

Patrick Hansford Associates

Architecture and Architects

Dr. Maher Amer

Wright State University

Choosing a Career

Dr. Damon Sink

University of Dayton

Music and Technology

Mr. Dan Bibby

Miami Valley Regional Crime Lab
(Ret)

Forensic Science

Dr. John Gallagher

Wright State University

Math/Physics of Martial Arts

Ms. Wendy Peters

Institute of Transpersonal
Psychology

Large Scale Psychology & Complexity

Mr. Stephen Peters

Battelle Memorial Institute

Quantum Mechanics: Physics of the Micro World

Ms. Cheri Adams

Boonshoft Museum of Discovery

Mr. Mohit Bhargava

Battelle Memorial Institute

The Cosmic Dance

Environmental Engineering

Junior Participants 2010 – 2011

Brookville High School

<i>Matthew D. DeVilbiss</i>	Brookville, OH
<i>Kelsey E. Limbert</i>	Brookville, OH
<i>Derek J. Warner</i>	Brookville, OH

Carroll High School

<i>Taylor N. Creech</i>	Beavercreek OH
<i>Kelley E. Dickman</i>	Spring Valley, OH
<i>Steven G. Dull</i>	Beavercreek, OH
<i>Jessica M. Gruhot</i>	Xenia, OH
<i>Brent R. Jennewine</i>	Xenia, OH
<i>Matthew D. Keating</i>	Xenia, OH
<i>Kevin R. Miller</i>	New Carlisle, OH
<i>Taylor M. O'Neil</i>	Dayton, OH
<i>Braiden W. Tom</i>	Spring Valley, OH

Centerville High School

<i>Manoj S. Ambalavanann</i>	Dayton, OH
<i>Shirin A. Dey</i>	Dayton, OH
<i>Devika Ghandi</i>	Centerville, OH
<i>Catherine E. Garrison</i>	Dayton, OH
<i>Paula S. Kim</i>	Centerville, OH

Chaminade-Julienne High School

<i>Rebecca A. Reis</i>	Dayton, OH
<i>Arthur H. Siwecki</i>	Dayton, OH

Fairborn High School

<i>Keyeria C. Ross</i>	Fairborn, OH
<i>Jessica D. Wiggins</i>	Fairborn, OH

Kettering-Fairmont High School

Emily G. Bascom Kettering, OH
Adam B. Donovan Kettering, OH

Northmont High School

Joel R. Anderson Dayton, OH
Kelsie L. Anderson Dayton, OH
Kaleigh B. Rowlands Englewood, OH
Courtney N. White Englewood, OH

Oakwood High School

Noah E. Faust Dayton, OH
Aaron A. Pruitt Dayton, OH
Christopher J. Sneider Dayton, OH

Valley View High School

Byron B. Brown Germantown, OH
Nathan D. Lee Germantown, OH

Vandalia-Butler High School

William S. Drees Vandalia, OH
Douglas C. Fittro Dayton, OH
Ryan P. Larger Vandalia, OH
Tom M. Mahoney Dayton, OH

West Carrollton High School

Miles E. Reagans Centerville, OH
Ryan J. Reagans Centerville, OH

Xenia High School

Victoria L. Couser Xenia, OH

Seminars of the Junior Participants

Dr. Michael Raymer
Wright State University

Dr. Nathan Klingbeil
Wright State University

Dr. John C. Gallagher
Wright State University

Mr Bryon Wilkins
United States Navy (Veteran)

Dr. Peggy DesAutels
University of Dayton

Dr. David Doman
Air Force Research Laboratory

Dr. Dragna Claflin
Wright State University

Ms. Cheri Adams
Boonshoft Museum of Discovery

Mr. Nick Baine
WSU Autonomous Lawnmower Team

Mr. Curt Grigsby
Air Force Research Laboratory

Mr. Greg Kramer
Microsoft Inc.

Mr. Julio Matao
Wright State University

Mr. Stephen Peters
Battelle

Dr. Thomas Hirt
Primed Physicians

Mr. Richard Van Hook
Air Force Research Laboratory

Dr. John C. Gallagher
Wright State University

Mr. Zach Gaston
Wright State University

***Applied Forensics: DNA
Analysis***

***Why High School Mathematics
Matters in College
Engineering Courses***

***Breaking Boards and Bricks:
The Physics of Martial Arts***

***The Technology of Fast Attack
Submarines***

Philosophy and Ethics

***Backyard Metal Work: Sand
Casting & Manufacture of
Home Built Precision Tools***

***Brain Structure and the
Neuroscience of Behavior***

Navigating the Night Sky

Precision D-GPS Navigation

***A Comprehensive Tool for
Differential Metabolomic
Profiling***

***A Day in the Life of an
Operating Systems
Programmer***

***Assistive Technology for Blind
Navigation***

The Aerodynamics of Flight

***A Day in the Life of a Family
Practice Physician***

***Automatic Coordination of
Multiple Camera Views***

***Digital Logic and Computer
Arithmetic***

***A Day in the Life of a College
Student – Undergraduate and
Graduate Views***

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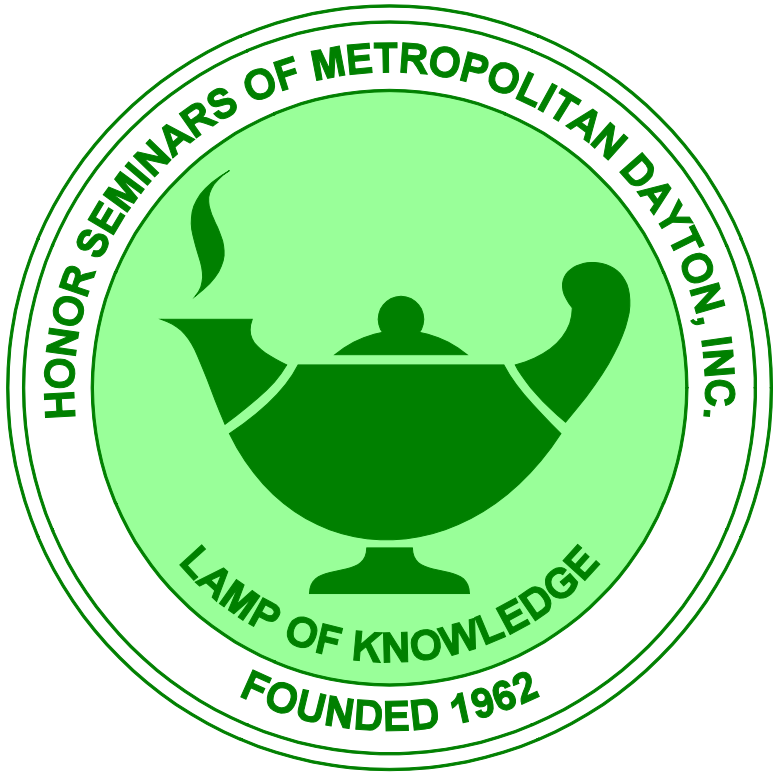
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Mr. Ambrose B. Nutt	Wilberforce U., U. of Dayton (Ret)
Mr. R. Max Peterson (Deceased)	Attitude/Motivational Consultants

CONTRIBUTORS

Companies and individuals throughout the Greater Dayton Area provide generous support to the Honor Seminars of Metropolitan Dayton, Incorporated. Following is a list of those donors, who have given their permission to be listed in this report, many have donated anonymously.

**Battelle Memorial Institute
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The ancient Greek art in our corporate logo is known as the "Lamp of Knowledge" which is symbolic of the major goal of Honor Seminars. It represents the academic achievement and dedication of self-improvement through life long learning. Thus, it is appropriate to encompass this art within our corporate logo.

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