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Introduction

The Department’s Academic Procedures handout is meant to be a supplement to the School catalog and is intended to explain the policies and procedures particular to our department and the degrees we offer. Each student should access and become familiar with the UAB School of Public Health Catalog, on line at

https://www.soph.uab.edu/catalog2010-2011

This describes the policies of the School, i.e., admissions, academic practices, etc. Additional University policies are found in the UAB Graduate School Catalog which is available on line at

http://main.uab.edu/Sites/gradschool/

The first section of the Procedures covers subjects common to the department as a whole. The subsequent sections deal with subjects pertaining to particular degree tracks. These procedures may not satisfactorily address all possible circumstances; therefore, if the need arises, the procedures may be amended during the academic year. A copy of amendments will be provided to all EHS faculty, staff, and students.

Environmental Health Sciences

The Department of Environmental Health Sciences focuses on understanding the causes, mechanisms, and consequences of environmental and occupational hazards, as well as the prevention and management of these hazards.

The department has three main areas:

- Environmental Toxicology
- Occupational and Environmental Health
- Environmental Management and Policy

Environmental Toxicology focuses on the area of gene-environment interaction. It develops and uses model biological systems to determine the mechanisms through which environmental toxicants alter gene expression and how variation in gene expression causes altered susceptibility to environmental toxicants.

Occupational and Environmental Health focuses on the identification and assessment of human health threats; on the prevention of disease and injury related to occupational and environmental agents, and on the promotion of health among workers, individuals and communities.

Environmental Management and Policy focuses on the development of strategies, policies and programs for preventing and solving environmental health problems. Key emphases in the department include environmental disasters, public health preparedness, and environmental risk communication.

The Department of Environmental Health Sciences offers MPH, MSPH, and PhD programs.
Environmental Health Science Competencies

CEPH requires competencies be identified for each degree program and area of specialization within the program. Below are the departmental competencies. The competencies that guide the development of specific specializations are listed under the individual programs.

**ENH 1** Specify approaches for assessing, preventing, and controlling environmental, occupational and industrial hazards that pose risks to human health and safety

**ENH 2** Describe the direct and indirect human, ecological, and safety effects of major environmental, industrial and occupational agents

**ENH 3** Specify current environmental, occupational and industrial risk assessment methods

**ENH 4** Describe genetic, physiologic, and psychosocial factors that affect susceptibility to adverse health outcomes following exposure to environmental hazards, occupational and industrial hazards

**ENH 5** Discuss various risk management and risk communication approaches in relation to issues of environmental justice and equity

**ENH 6** Explain the general mechanisms of toxicity in eliciting a toxic response to various environmental, industrial and occupational exposures

**ENH 7** Develop a testable model of environmental injury also in the context of occupational and industrial settings

**ENH 8** Describe federal and state regulatory programs, guidelines, and authorities that control environmental; occupational and industrial health and safety issues

**ENH 9** Detailed knowledge of the mechanisms of environmental toxin effects on human health and physiology

**ENH 10** Familiarity with research advances in field not directly related to student research problem (including directed reading of primary literature)

**ENH 11** Skill in oral presentation of scientific data

**ENH 12** Numerical data analysis, as specified for all MPH students

**ENH 13** Numerical data analysis, as outlined in BST competencies 1-7

**ENH 14** Writing of research grant proposals, including supervised research project for degree

**ENH 15** Ethical conduct of scientific research (required of all UAB Ph.D. students in participating departments)

**ENH 16** Conduct supervised original masters’ thesis research project

**ENH 17** Conduct original exploratory research towards dissertation

**ENH 18** Conduct original doctoral dissertation research
ENH 19  Comprehensive biological basis of health and disease

ENH 20  Comprehensive understanding of how environmental toxicants cause diverse human diseases

ENH 21  Chemical, physical, geological, and biological bases of environmental health sciences

ENH 22  Advanced mastery of environmental chemistry

ENH 23  Advanced mastery of topics in environmental management

ENH 24  Causes, effects, and responses to environmental disasters (both natural and human-made)

ENH 25  Propose a research project in sufficient detail that a research committee can review it for scientific validity and for feasibility

ENH 26  Conduct a research project under the guidance of senior investigators

ENH 27  Write and present a manuscript reporting research background, methods, results, discussion, and conclusions

ENH 28  Conduct a literature review on a topic of ENH research interest

ENH 29  Informatics tools appropriate for specialty

Mission of the UAB School of Public Health

The mission of the School of Public Health is to discover, to teach, and to apply knowledge to promote health and prevent disease in the human population. The school achieves this mission by bringing the various disciplines of public health together to educate individuals who will be working to improve the health of the school’s constituent populations.

The goal of the curriculum at the UAB School of Public Health is to combine innovative teaching methods with hands-on, community-based experience to give students the depth of expertise required of the public health professional in the 21st century.
Akhter, Hasina 934-5770 RPHB 630 hakhter@uab.edu  Postdoctoral Fellow
Antony, Veena 934-7067 RPHB 534B vantony@uab.edu  Professor
Bailey, Shannon 934-7070 RPHB 623 sbailey@uab.edu  Associate Professor
Becker, Steven 934-6089 RPHB 534C smbecker@uab.edu  Assoc. Professor
Betancourt, Angela 934-7071 RPHB 629 abmidred@uab.edu  Research Associate
Brand, Jeff 934-7061 RPHB 617 brandi@uab.edu  Graduate Assistant
Dickinson, Dale 975-7493 RPHB 524C dadickin@uab.edu  Assistant Professor and Graduate Program Director
Fanucchi, Michelle 934-7230 RPHB 524B fanucchi@uab.edu  Associate Professor
Filiano, Ashley N. 934-7071 RPHB 629 aupton@uab.edu  Postdoctoral Fellow
Floyd, Evan Lee 934-7295 RPHB 637 efloyd28@uab.edu  GS Trainee
Garfinkel, Mark 934-7076 RPHB 530A garfinkl@uab.edu  Research Assistant Professor
Gohlke, Julia 934-7060 RPHB 530B jogohlke@uab.edu  Assistant Professor
Holt, Paulisha 934-7178 RPHB 543 pholt@uab.edu  Office Services Specialist III
Huang, Wentan 934-5770 RPHB 630 wthuang@uab.edu  Visiting Scholar
Hudson, Becky 934-7032 RPHB 623 bhudson@uab.edu  Administrative Associate
Liu, Rui-Ming 934-7028 RPHB 534B rliu@uab.edu  Associate Professor
Lungu, Claudiu 934-2072 RPBH 520B clungu@uab.edu  Assistant Professor
Maples, Elizabeth 934-7209 RPHB524D ehm@uab.edu  Assistant Professor & Director, Continuing Education Outreach
Mao, Zhengkuan 934-7071 RPHB 629 zmao@uab.edu  Research Associate
Millender-Swain, Telisha 934-7071 RPHB 629 tmswain@uab.edu  Research Assistant
Morris, Phyllis 934-6080 RPHB 530 pmorris@uab.edu  Office Services Specialist III
Oestenstad, Riedar 934-6208 RPHB 520C oestk@uab.edu  Associate Professor
Postlethwait, Edward 934-7085 RPHB 623 epost@uab.edu  Professor
Shlykova, Svitlana 934-7204 RPHB 636 shlykova@uab.edu  Research Assistant
Squadrito, Giuseppe 934-2740 RPHB 524A gsquadr@uab.edu  Research Associate Professor
Stein, Asaf 934-7119 RPHB 629 asaf@uab.edu  Graduate Assistant
Theis, Whitney 934-7061 RPHB 617 wtheis01@uab.edu  Graduate Assistant
Tuggle, Katherine 93407204 RPHB 636 ktuga83@uab.edu  Graduate Assistant
FACULTY RESEARCH INTERESTS

Steven M. Becker, Ph.D., Associate Professor. Research, public health practice, and policy interests focus on disaster and emergency management, including emerging health threats, chemical/biological/radiological/nuclear incidents, environmental disasters (U.S., international), terrorism, risk communication, emergency messaging, population responses to disaster, responder information needs in disaster, and hospital and health department preparedness. Other focus areas include environmental management, environmental health policy, and international studies (including overseas field research). Email: smbecker@uab.edu.

Shannon Bailey, PhD, Associate Professor, Mechanisms of alcoholic and nonalcoholic liver disease; functional proteomics; mitochondrial bioenergetics and hepatic energy metabolism; free radical and nitric oxide biology. Email: sbailey@uab.edu

Dale A. Dickinson, PhD, Assistant Professor, Molecular mechanisms of the adaptive response to environmental toxicants and pollutants; mechanism of action of naturally occurring compounds; induction of glutathione; functional genomics & proteomics of naturally occurring compounds; post-transcriptional control of gene expression by microRNAs. Email: dadickin@uab.edu

Michelle V. Fanucchi, PhD, Associate Professor, Childhood lung disease and its etiology. Pulmonary cell biology and toxicology of air pollutants, including particulates, ozone, chlorine and various polynuclear hydrocarbons. Cell-to-cell interactions in the developing lung as well as in repair after lung injury and disease in children. Email: fanucchi@uab.edu

Mark D. Garfinkel, PhD, Research Assistant Professor, Drosophila; behavioral genetics; molecular genetics of sex determination; computational biology; developmental toxicology; genomics. Email: garfinkl@uab.edu

Julia M. Gohlke, Ph.D., Assistant Professor. Main focus of research is development of methods to improve assessments of health threats, both nationally and globally, through application of novel bioinformatics and computational modeling approaches. Particular areas of interest include improving methods for incorporation of neurodevelopmental processes that distinguish children as a vulnerable population, health implications of energy policy and climate change, and environmental policy evaluation from a global health perspective. Email: jgohlke@uab.edu.
Claudiu Lungu, PhD, Assistant Professor, Evaluation of adsorption characteristics of granular activated carbon and activated carbon fibers used in respiratory protection and protective clothing; Measurement and evaluation of VOC exposure in various workplaces; VOC emissions from building materials; Exposure to ionizing radiation. email: clungu@uab.edu

Rui-Ming Liu, PhD, Associate Professor, Oxidative stress contributes importantly to the pathogenesis of many diseases and aging process. Glutathione (GSH) is the most abundant intracellular free thiol and an important antioxidant. GSH concentration decreases with age and in many pathological conditions such as fibrosis and Alzheimer’s disease. The research in my lab focuses on the mechanisms of GSH depletion during aging and in diseases, the role of oxidative stress in the development of fibrotic and neurodegenerative diseases, and the potential therapeutic value of antioxidants in the treatment of these diseases. email: rliu@uab.edu

Elizabeth H. Maples, PhD, Assistant Professor, Assistant Center Director, Reduction of work-related injuries and illnesses through effective training programs, designing, implementing and evaluating occupational health and safety training programs. also interested in expanding the capacity of environmental public health practitioners in working within communities to address environmental health problems. email: ehm@uab.edu

R. Kent Oestenstad, PhD, Associate Professor, Center Director, Deep South Center, Evaluation of respirator effectiveness, respirator performance modeling; aerosol measurement, aerosol behavior and health effects; noise exposure and hearing loss, and occupational safety. email: oestensk@uab.edu

Edward M. Postlethwait, PhD, Professor, Research and academic interests are founded in pulmonary toxicology and free radical biochemistry, with current efforts primarily focused on delineating the mechanisms by which inhaled oxidants interact with the lung surface to initiate epithelial injury, how environmental oxidants impact lung growth and development, and what factors may govern the extent and distribution of exposure-related cellular perturbations. To address these issues, research endeavors incorporate aspects of physiology, quantitative morphology and image analysis, oxidant and antioxidant biochemistry, pharmacokinetics, dosimetry, and chemical engineering. email: epost@uab.edu

Giuseppe L. Squadrito, PhD, Research Associate Professor. Development, design and evaluation of dynamic multi-component molecular systems that can be used to understand the effects of oxidants in biological systems of various degrees of complexity. Such systems include reactions of smog, industrial chemicals such as chlorine, combustion-associated, and naturally produced oxidants and free radicals with biological target molecules, the covalent modifications that they induce and the cellular responses that ensue, and the protection by natural and synthetic antioxidants, antioxidant enzymes, and free radical scavengers. E-mail: gsquadr@uab.edu
Copy Machines
A copier is accessible to students in the School of Public Health Copy Room located in the Ryals building, room 130, for assistance call 934-7536. Students can purchase a copy card for their use. Students are responsible for all of their copying needs, including copies of reports, proposal, thesis, etc.

Fax Machine
The department has a fax machine (205/975-6341) located in room 530. The fax machine is for the business use of faculty and staff of the department. The charge for sending a personal domestic fax is $3 for the first page plus $1 for each additional page and a personal international fax is $5 for the first page plus $1 for each additional page.

Telephones
A Phone is available for student use in the Ryals Building first floor lobby. Students may use department phones for official use when approved by one of the department’s faculty or staff.

Lab Access
While in the research phase of study, it may be necessary for a student to have a key for lab access. The student should contact his/her advisor who will in turn generate a request for the student to obtain a key. Presently, UAB Key Control requires a deposit of $1 per key when the key is picked up. The money is refunded when you return the key to Key Control.

Reference Materials
Students are welcomed to use books and journals located in the department. Check with each faculty member before looking for, or borrowing, any materials from his office as each has his own "check-out" procedures. The department maintains several journal subscriptions, as well as departmental theses and other reference materials, presently in the back hall. These references can be "checked-out", but are not to be removed from the building.

Reserving Conference and Class Rooms and Equipment
(e.g. pointer, laptop)
Conference and class rooms and equipment are to be reserved for use through the Office of Student an Academic Services at 934-4993.
**Dean’s Office:**
Max Michael, M.D. (975-7742) is Dean of the School of Public Health.

**OSAS – The Office of Student and Academic Services:**
Melissa Galvin, PhD. (205/934-4993) is Associate Dean for Academic Affairs.

Cheryl Johnson (205/934-4993) is Director of Student and Academic Services and is the contact for questions concerning courses, student record updates, policies and procedures - cljohnson@ms.soph.uab.edu

**OSAS Departmental contacts**

**Front Desk:**
Pheandrea Long is responsible for general questions as well as vending machine refunds and questions concerning room reservations for meetings and doctoral carrel reservations, updates to the lobby message board. pheandre@uab.edu

**Admissions:**
Sue Chappell (205/934-2684) is responsible for incoming applications. SChappell@uab.edu

**Career Services:**
Emily Tubergen (205/934-7799) is the Career Services Coordinator.

**Financial Aid:**
Pheandrea Long (205/934-1961) is the Financial Aid Coordinator for the School of Public Health. The UAB Office of Student Financial Aid number is 205/934-8223. - pheandre@uab.edu

**Internships:**
Emily Tubergen (205/934-7799) is the Coordinator for Student Internships. ejt3@uab.edu

**Student activities and PHSA:**
Richard Bennett (205/934-4725) rbennett@uab.edu

**Vending Machine Refunds:**
See Pheandrea Long above
Useful Phone Numbers

Blazer Bookstore.................................................................205/934-4686
Center for International Programs .............................................205/934-3328
Graduate School...................................................................205/934-8227
Hill University Center Cashier’s Office ........................................205/934-3570
Hill University Center Information..............................................205/934-8000
Key Control............................................................................205/934-3708
Lister Hill Library.................................................................205-934-3306
Mervyn Sterne Library............................................................205/934-6364
Office of Academic Appeals......................................................205/934-5504
Student Health Services.........................................................204/934-3580
Student Housing...................................................................205/934-2092
UAB Parking ..........................................................................205/934-3513
UAB Police.............................................................................205/934-3434
Escort Service.......................................................................205/934-8772
Emergency.............................................................................911
Registration Information

BLAZER ID
Every Student is required to have a BlazerID and email, as The School of Public Health and the Department of Environmental Health Sciences uses this email to disseminate information and inform of any changes in courses or scheduling. You will also need a BlazerID to register. The following link will take you to BlazerID Central; from there you will be able to get answers to any questions you may have.

https://padlock.dpo.uab.edu/blazerid.html

Banner Registration Information
All registration is now done on line through BlazerNET. BlazerNET is designed especially for the internal UAB community, and provides centralized access to the information and services that students, faculty and staff need on a daily basis. From there you can get up-to-date information about UAB news and events to access to class registration, financial aid, grading, policies and forms, the Oracle Finance and HRM systems and more, BlazerNET puts what you need at your fingertips.

You can log on with your BlazerID at the following website:

https://blazernet.uab.edu/cp/home/displaylogin

From there you can look up available classes. To be able to register you have to meet with your advisor and received your RAC (Registration Access Code).
SOPH Addresses

Department Mailing Address
UAB School of Public Health
Department of Environmental Health Sciences
Ryals Bldg. 530
1530 – 3rd Avenue South
Birmingham, Alabama 35294-0022

Department Web Site
For other departmental information and news please access our website at:
http://www.soph.uab.edu/ehs

School of Public Health Physical Address
UAB School of Public Health
Ryals Public Health Building 530
1665 University Blvd
Birmingham, Alabama 35294-0022

School of Public Health Web Site
For other student information please access the school’s website at:
http://www.soph.uab.edu
INTRODUCTION

The master of public health (MPH) degree in the Department of Environmental Health Sciences is designed to augment the previously-gained experience that an individual possesses in one of the tracks or provide a professional from another field (e.g., medicine, law) with a general background in one of these tracks as well as public health. Students who enter the program must have had at least two years of intensive and relative professional experience in the field of emphasis or a professional degree (such as MD or JD).

There are two program emphasis offered—Environmental Health and Toxicology (ETOX) and Occupational Health and Safety (OHS).

COMPETENCIES

Competencies taught in the ETOX and OHS (Environmental Health/Toxicology and Occupational Health and Safety) MPH program include:

ENH 1 Specify approaches for assessing, preventing, and controlling environmental, occupational and industrial hazards that pose risks to human health and safety

ENH 2 Describe the direct and indirect human, ecological, and safety effects of major environmental, industrial and occupational agents

ENH 3 Specify current environmental, occupational and industrial risk assessment methods

ENH 4 Describe genetic, physiologic, and psychosocial factors that affect susceptibility to adverse health outcomes following exposure to environmental hazards, occupational and industrial hazards

ENH 5 Discuss various risk management and risk communication approaches in relation to issues of environmental justice and equity

ENH 6 Explain the general mechanisms of toxicity in eliciting a toxic response to various environmental, industrial and occupational exposures

ENH 7 Develop a testable model of environmental injury also in the context of occupational and industrial settings

ENH 8 Describe federal and state regulatory programs, guidelines, and authorities that control environmental; occupational and industrial health and safety issues

ENH 9 Familiarity with research advances in field not directly related to student research problem (including directed reading of primary literature)

ENH 10 Numerical data analysis, as specified for all MPH students

ENH 11 Numerical data analysis, as outlined in BST competencies 1-7

ENH 12 Skill in oral presentation of scientific data

ENH 13 Informatics tools appropriate for specialty

ENH 28 Conduct a literature review on a topic of ENH research interest

ADVISOR

Students are assigned a faculty advisor at the start of their program; however students need to consult with the Program Coordinator prior to registering for your first semester in the MPH program.

A student may have a different advisor for his internship and should be approved before to choosing an internship. The request to appoint your advisor must be submitted on the appropriate form and approved Department Chair. (See program coordinator for questions)
CURRICULUM REQUIREMENTS

Students pursuing the MPH degree acquire knowledge of fundamental public health disciplines by School core courses. In addition, a student will complete the department core courses and specific program track courses and electives as required. Electives are chosen in consultation with the student’s academic advisor. Electives outside the SOPH must be approved by the student’s advisor.

INTERNSHIP

In order to develop basic public health skills all students are required by CEPH to take a three hour internship. You may check with the schools internship coordinator or the school’s website for suggestions on internship locations.

Registering for internship experience

Before registering for the internship is approved we require the internship description and agreement form completed and on file. This form can be found on the schools internship webpage at www.soph.uab.edu/default.aspx?id=208

You should register under your academic advisor for ENH 697 – Internship in Environmental Health Science. For three credit hours, you are expected to spend a minimum of 240 hours during the 12 weeks working for the agency. The internship must be completed in one semester. You are required to complete your core course work before registering for internship hours. Credit cannot be applied retroactively to work you have done prior to registering for the internship. Students should feel free to contact the department if they have any questions or problems during the summer.

At the end of the semester we will need the evaluations of the internship from the student and the supervisor; the students final paper and poster

Grades will be based on both the final product and supervisor’s evaluation.

A grade of pass or fail for the internship will be assigned by the internship course master, based on evaluations and final journal.

For complete internship requirements please check out the syllabus on the UAB School of Public Health website: https://www.soph.uab.edu/files/internship/InternshipSyllabus2011.pdf.

PROGRAM COMPLETION

You are responsible for meeting deadlines for graduation. Graduation deadlines are indicated in the School of Public Health Academic Calendar on line. At the beginning of the semester of anticipated graduation, you must complete an “Application for Degree” form which can be obtained from the School’s Office of Student and Academic Affairs. Your “Application for Degree” must be turned in to the program coordinator no later than two weeks into the expected semester of graduation.

In order to graduate, all degree requirements must be satisfied, all I, and N grades must be removed. You are expected to be enrolled for at least three credit hour of graduate work in your final semester prior to graduation.

Once all requirements are satisfied, a "Request for Master’s Degree" form will need to be completed and sent to the School's Office of Student and Academic Affairs.

AWARD OF DEGREE

Upon approval of the School of Public Health Assistant dean for academic affairs and payment of outstanding financial obligations to the university, the student will receive the degree of master of public health.

Diplomas are issued at the end of each semester. Degrees are formally awarded at commencement exercises in December and June. If the new graduate wishes to participate in the ceremony, a cap and gown must be ordered (and paid for) by the graduate through the UAB Bookstore at least two months before the event.
SUMMARY OF PROCEDURES FOR THE MPH DEGREE

- Completion of required coursework
- Application for degree (See School Calendar for deadline dates)
- Payment of appropriate fees by student
- Release of degree form two weeks before the end of the semester.
**Curriculum Planning Worksheet**  
**Environmental Health Sciences**  
**2011-2012 - MPH Environmental Health**

**Name:**  
**Banner ID:**

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**All MPH core courses MUST be taken in the first two semesters of enrollment and PUH 695, Integrative Experience, MUST be taken in the final semester of enrollment.**

<table>
<thead>
<tr>
<th>Course Name</th>
<th>Term Course Available</th>
<th>Credit Hours</th>
<th>Term /Year Taken</th>
<th>Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Core Requirements: 23 hours</strong></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>HCO 600: Intro to Public Health &amp; Pop Based Hlth Programs</td>
<td>X</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BST 611: Intermediate Statistical Analysis I</td>
<td>X X</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BST 612: Intermediate Statistical Analysis II</td>
<td>X X</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ENH 600: Fundamentals of Environmental Health</td>
<td>X</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EPI 600: Introduction to Epidemiology</td>
<td>X</td>
<td>3</td>
<td></td>
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<tr>
<td>HB 600: Social &amp; Behavioral Sciences Core</td>
<td>X</td>
<td>3</td>
<td></td>
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<tr>
<td>PUH 695: The Public Health Integrative Experience</td>
<td>X X</td>
<td>1</td>
<td></td>
<td></td>
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<tr>
<td>EPI 623: SAS class</td>
<td>X</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>GRD 727 writing - or determined by UAB Graduate School</td>
<td>X X</td>
<td>3</td>
<td></td>
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<tr>
<td><strong>Department Track Requirements: 16 hours</strong></td>
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<tr>
<td>ENH 602: Environmental Management</td>
<td>X</td>
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<td></td>
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<tr>
<td>ENH 650: Env. &amp; Occp Toxicology &amp; Diseases</td>
<td>X</td>
<td>5</td>
<td></td>
<td></td>
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<tr>
<td>ENH 651: Risk Assessment of Env. Hazards</td>
<td>X</td>
<td>3</td>
<td></td>
<td></td>
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<tr>
<td>ENH 660: Fund. Of Air &amp; Water Pollution</td>
<td>X</td>
<td>3</td>
<td></td>
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<tr>
<td>ENH 691: Current Topics in ENH Occup. Health &amp; Safety</td>
<td>X X</td>
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<tr>
<td>ENH 691: Current Topics in ENH Occup. Health &amp; Safety</td>
<td>X X</td>
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<tr>
<td><strong>Departmental Electives: 6 hours</strong></td>
<td></td>
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<td></td>
<td>3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Internship: 3 hours</strong></td>
<td></td>
<td></td>
<td></td>
<td>3</td>
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<tr>
<td>ENH 697: Internship</td>
<td>X X X</td>
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<td></td>
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</tr>
</tbody>
</table>

**Total Credit Hours Earned for Degree**  

48
## Curriculum Planning Worksheet

### Environmental Health Sciences

#### 5th Year MPH  Environmental Health Sciences

| Name: |  |
| Banner ID: |  |

All MPH core courses MUST be taken in the first two semesters of enrollment and MCH 695, Integrative Experience, MUST be taken in the final semester of enrollment.

<table>
<thead>
<tr>
<th>Course Name</th>
<th>Term Course Available</th>
<th>Credit Hours</th>
<th>Term /Year Taken</th>
<th>Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Core Requirement: 18 hrs (these are taken during the Junior &amp; Senior year of undergraduate)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HCO 600: Intro to Public Health &amp; Pop Based Hlth Programs</td>
<td>X</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BST 611: Intermediate Statistical Analysis I</td>
<td>X X</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BST 612: Intermediate Statistical Analysis II</td>
<td>X X</td>
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Curriculum Planning Worksheet  
Environmental Health Sciences  
2011-2012 - MPH Occupational Health & Safety

Name:  
Banner ID:  

All MPH core courses MUST be taken in the first two semesters of enrollment and MCH 695, Integrative Experience, MUST be taken in the final semester of enrollment.

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**Total Credit Hours Earned for Degree**  51
INTRODUCTION
The master of public health degree is designed to provide an intensive educational experience for students with or without previous experience in the desired track of study. There are three IH MPH tracks within the department: Industrial Hygiene, Industrial Hygiene / Hazardous Substances and an accelerated Industrial Hygiene degree. (This degree track is specifically designed for graduates of undergraduate IH programs financially supported by the National Institute for Occupational Safety and Health [NIOSH]).

COMPETENCIES
The departmental competencies covered by this degree are:

**ENH 1** Specify approaches for assessing, preventing, and controlling environmental, occupational and industrial hazards that pose risks to human health and safety

**ENH 2** Describe the direct and indirect human, ecological, and safety effects of major environmental, industrial and occupational agents

**ENH 3** Specify current environmental, occupational and industrial risk assessment methods

**ENH 4** Describe genetic, physiologic, and psychosocial factors that affect susceptibility to adverse health outcomes following exposure to environmental hazards, occupational and industrial hazards

**ENH 5** Discuss various risk management and risk communication approaches in relation to issues of environmental justice and equity

**ENH 6** Explain the general mechanisms of toxicity in eliciting a toxic response to various environmental, industrial and occupational exposures

**ENH 7** Develop a testable model of environmental injury also in the context of occupational and industrial settings

**ENH 8** Describe federal and state regulatory programs, guidelines, and authorities that control environmental; occupational and industrial health and safety issues

**ENH10** Familiarity with research advances in field not directly related to student research problem (including directed reading of primary literature)

**ENH 11** Skill in oral presentation of scientific data

**ENH 12** Numerical data analysis, as specified for all MPH students

**ENH 13** Numerical data analysis, as outlined in BST competencies 1-7

**ENH 16** Conduct supervised original masters thesis research project

**ENH 26** Conduct a research project under the guidance of senior investigators

**ENH 28** Conduct a literature review on a topic of ENH research interest

**ENH 29** Informatics tools appropriate for specialty

CURRICULUM REQUIREMENTS
Each track has its own course requirements, which are listed at the end of this section. All Industrial Hygiene tracks are designed for the full-time student and therefore conflicts in scheduling may occur if courses are taken out of sequence or on a part-time basis. Students are admitted in the fall semester and should follow the appropriate program's curriculum outline.

ADVISOR
An academic advisor is appointed for each new student at the time of admission. A student may request a change in advisor at anytime; however, all changes in advisor must be submitted on the appropriate form and approved by current advisor and Department Chair. (See program coordinator for form)

RESEARCH ADVISOR
During the first year of study, MPH students should discuss their research interests with all faculty in the department. By late spring semester,(Mid fall semester for those in the accelerated IH program) the student will identify and request one faculty member to be the research advisor for his/her project research committee. Be aware that in some cases faculty members of choice may not be able to comply
with a request to be research advisor since this workload must be distributed roughly evenly among the faculty. The research advisor also serves as the student's academic advisor. When there is a change of advisor, the student should advise the Program Coordinator and the appropriate form will be sent to the Academic Affairs Office.

**INTERNSHIP**

The SOPH and DEHS require internships for all MPH students. The Program Coordinator coordinates the Industrial Hygiene internship program. Students should not arrange their own internships without departmental approval. **Course credit will be given only for internships arranged or approved by the department.**

The department looks for companies that will offer a well-rounded training experience under the supervision of a professional in the chosen field of study. This enables our students to learn practical details such as how corporations work, the need to establish working relationships within the corporate structure, and awareness of roles from production employees to management. These skills cannot be taught in the classroom, nor can they be mastered in a three-month internship. But we do hope to make our students aware of the importance of these practical considerations before they graduate. Each year students indicate that their internships meet or exceed these goals.

**PROCEDURE**

The department maintains a database of companies from across the nation with an interest in employing our interns. These companies have been evaluated by the department to ensure that they meet the requirements of a summer internship employer as previously described. (If you are aware of a company that you think would make a good internship, please submit the information to the IH Program Director.) At the beginning of the fall semester all first-year Industrial Hygiene MPH students will email a copy of their up-to-date resume to the IH Program Director. Student Resumes will be sent to companies requesting interns.

After receiving the resumes, most companies conduct an interview, either through a campus visit or by phone. When a company decides to make an offer to a UAB student, the company contact is instructed to contact the Program Director. If the student has not been placed, the company can then contact the student. At this point, the student is considered "placed." In other words, unless there is a justifiable reason not to, the student must take the first extended offer. This is necessary to facilitate the timely placement of all students and to avoid the possibility of alienating companies. Any reason for not wanting to accept an internship offer should be discussed with the Program Coordinator before it is declined.

At this time, the student and company work together to finalize placement, which typically includes filling out an employment application, determining employment dates, having a physical examination and drug testing. Some companies will have the medical exams performed locally while others will have the student travel to their facility (they either prepay or reimburse expenses, but check with your contact for specific company policies). Once these procedures are completed, the company will send an official offer. If any portion of the offer seems unreasonable or unacceptable, please notify the Program Coordinator before contacting the company.

**Registering for internship experience**

Before registering for the internship the internship description and agreement form needs to be completed and on file. This form can be found on the schools internship webpage at [www.soph.uab.edu/default.aspx?id=208](http://www.soph.uab.edu/default.aspx?id=208).

You should register under your academic advisor for ENH 697 – Internship in Environmental Health Science. For three credit hours, you are expected to spend a minimum of 240 hours during the 12 weeks working for the agency. The internship must be completed in one semester.

Students should feel free to contact the department if they have any questions or problems during the summer.

At the end of the semester, evaluations of the internship are required from the student and supervisor. These can be found on the website above.
Internship requirements
Students are required to give an poster presentation of their internship (see the online syllabus for further information).
A grade of pass or fail for the internship will be assigned by the internship course master based on evaluations.
For complete internship requirements please check out the internship syllabus on the UAB School of Public Health website. https://www.soph.uab.edu/files/internship/InternshipSyllabus2011.pdf

PROJECT RESEARCH
The student will register for project research (ENH699) in accordance with their program's curriculum requirements. A letter grade will be assigned each semester that is based upon the quality and depth of the deliverable (described below). Should the student fail to submit the deliverable, a letter grade of C or F will be assigned. Extenuating circumstances or factors beyond the control of the student will be taken into consideration if deliverables are not completed at the required time. Detailed instructions on preparing a project research report are found in Appendix 1, and Appendix 2.

Deliverables and Deadlines for IH and IH/HSAT (For those in the accelerated IH program, note exceptions).
Pre-proposal
Spring Semester of the First Year
During the spring (fall for IH accelerated students) semester of the first year, the student should have selected a research advisor. A "Change of Advisor" form should be completed if the research advisor is different from the academic advisor. This form can be obtained from the Program Coordinator. The student and advisor will develop an idea for a research project. The student will present the advisor with a one-to-two-page description (pre-proposal) of the problem to address, general strategy, and expected outcomes before the end of the spring semester (fall for IH accelerated students). Potential members of the research project committee should also be identified.

Proposal
Fall Semester. In the fall semester of the second year (Fall semester of the first year for IH accelerated students), the student will register for two hours of ENH699-Master's Level Project Research. Early in the semester the advisor may request a research project committee be formed depending on the research. All members should be graduate faculty. Non-graduate faculty may serve as ad hoc members. The student must present a research proposal before the end of the fall semester.
Spring Semester. The student will register for three hours of ENH699. The student should begin work on the research project by the beginning of the semester. The student should meet often with his/her advisor, and if applicable, with other committee members as appropriate, to discuss the status of the research. A first draft of the research report should be submitted to the research advisor no later than six weeks prior to the last day to defend as designated by the Office of Student and Academic Services. A meeting date should be scheduled with the advisor to discuss the first draft at the earliest possible date.

Final Report
When the research report is acceptable to the advisor, a memorandum and a copy of the report will be sent to the committee members, if applicable. Once the advisor (and committee) acknowledges that all changes have been made, the student will provide the department with a digital copy of the final report.

Then the student can complete the Master's Degree Recommendation form.

APPLICATION FOR DEGREE
At the beginning of the semester of anticipated graduation the student will complete an "Application for Degree" form, which can be obtained from the School's Office of Student and Academic Affairs. In order to graduate, all degree requirements must be satisfied and all I, and N grades must be removed. The department will be responsible for assuring that all department requirements have been met (see checklist below). If all requirements are satisfied, the advisor will complete a "Diploma Release" form, which will be sent to him from the School's Office of Student and Academic Affairs.
AWARD OF DEGREE
Upon approval of the School of Public Health Assistant Dean for Academic Affairs and payment of outstanding financial obligations to the university, the candidate will receive the degree of master of public health. Diplomas are issued at the end of each semester. Degrees are formally awarded at commencement exercises in December and May. If the new graduate wishes to participate in either ceremony, a cap and gown must be ordered (and paid for) by the graduate through the UAB Bookstore at least two months before the event.

SUMMARY OF PROCEDURES FOR THE MPH DEGREE
- Completion of coursework
- Appointment of a research committee
- Successful defense of project research ("Favorable Recommendation for the Master’s Degree ")
- Provide department with one copy of thesis
- Provide advisor with diskette containing document and data
- Clean up lab area utilized and properly store all supplies (Check List Signed)
- Correctly dispose of hazardous/biological/radioactive wastes (Check List Signed)
- Turn in keys
- Payment of appropriate fees by student
- Graduate program director sends School of Public Health all final papers.
# Curriculum Planning Worksheet
## Environmental Health Sciences
### 2011-2012 - MPH Industrial Hygiene

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<td>EPI 623: SAS class</td>
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<td>ENH 624: Control of Occupational Hazards</td>
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<td>ENH 625: Industrial Hygiene Case Studies</td>
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**Total Credit Hours Earned for Degree (minimum 63 required)** 64
**Curriculum Planning Worksheet - Environmental Health Sciences**

**2011-2012 - MPH Industrial Hygiene/ HSAT**

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<th>Name</th>
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- BST 611: Intermediate Statistical Analysis I X X 3
- BST 612: Intermediate Statistical Analysis II X X 3
- GRD 727 writing - or determined by UAB Graduate School X X X 3
- EPI 600: Introduction to Epidemiology X 3
- HB 600: Social & Behavioral Sciences Core X 1
- PUH 695: The Public Health Integrative Experience X X 1
- EPI 623: SAS class X X 3

**Department Track Requirements: 30 hours**

- ENH 621: Fundamentals of Industrial Hygiene X 3
- ENH 624: Control of Occupational Hazards X 2
- ENH 625: Industrial Hygiene Case Studies X 2
- ENH 626: Physical Agents X 2
- ENH 650: Env. & Occp Toxicology & Diseases X 5
- ENH 661: Air Sampling and Analysis X 3
- ENH 670: Fundamentals of Occ Saf & Ergonomics X 3
- ENH 680: Field Interdisciplinary Studies X 1
- ENH 680: Field Interdisciplinary Studies X 1
- ENH 681: Interdisciplinary Worksite Evaluations X 2
- ENH 681: Interdisciplinary Worksite Evaluations X 2
- ENH 691: Current Topics in ENH Occup. Health & Safety X X 1
- ENH 691: Current Topics in ENH Occup. Health & Safety X X 1
- ENH 691: Current Topics in ENH Occup. Health & Safety X X 1
- ENH 691: Current Topics in ENH Occup. Health & Safety X X 1

**Departmental Research: 5 hours**

- ENH 699: Masters Level Project Research X X X 2
- ENH 699: Masters Level Project Research X X X 3

**Departmental Electives: 3 hours**

- HSAT Selective Electives; Choose at least two of the following: 6 hours
  - ENH 601: Environmental Chemistry ** X 3
  - ENH 602: Environmental Management (offered in even years) X 3
  - ENH 622: IH Applications for Haz. Substances ** X 3
  - ENH 660: Air & Water Pollution 3

**Internship - 3 hours**

- ENH 697: Internship in Environmental Health X X X 3

**Total Hours Earned for Degree (minimum 66 required)** 67

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**Notes:**

- Students are also required to take either a 40 Hr Haz. Waste Site Worker Course (OSHA 29 CFR 1910.120(e)) or a 45-Hr. Haz. Materials Emergency Tech. Level Course (OSHA 29 CFR 1910.120 (q)).
# Curriculum Planning Worksheet
## Environmental Health Sciences
### 2011-2012 - MPH Industrial Hygiene Accelerated

<table>
<thead>
<tr>
<th>Course Name</th>
<th>Term Course Available</th>
<th>Credit Hours</th>
<th>Term /Year Taken</th>
<th>Grade</th>
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<tr>
<td><strong>Core Requirement: 23 hours</strong></td>
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<tr>
<td>HCO 600: Intro to Public Health &amp; Pop Based Hlth Programs</td>
<td>X</td>
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<tr>
<td>BST 611: Intermediate Statistical Analysis I</td>
<td>X X</td>
<td>3</td>
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<td></td>
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<tr>
<td>BST 612: Intermediate Statistical Analysis II</td>
<td>X X</td>
<td>3</td>
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<tr>
<td>GRD 727 writing - or determined by UAB Graduate School</td>
<td>X X X</td>
<td>3</td>
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<tr>
<td>EPI 600: Introduction to Epidemiology</td>
<td>X</td>
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<tr>
<td>HB 600: Social &amp; Behavioral Sciences Core</td>
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<tr>
<td>PUH 695: The Public Health Integrative Experience</td>
<td>X</td>
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<td>EPI 623: SAS class</td>
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<tr>
<td>HCO 600: Intro to Public Health &amp; Pop Based Hlth Programs</td>
<td>X X</td>
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<tr>
<td><strong>Department Track Requirements: 12 hours</strong></td>
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<td>ENH 625: Industrial Hygiene Case Studies</td>
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<td>ENH 650: Env. &amp; Occp Toxicology &amp; Diseases</td>
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<td>ENH 680: Field Interdisciplinary Studies</td>
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<tr>
<td>ENH 681: Interdisciplinary Worksite Evaluations</td>
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<tr>
<td>ENH 691: Current Topics in ENH Occup. Health &amp; Safety</td>
<td>X X</td>
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<tr>
<td>ENH 691: Current Topics in ENH Occup. Health &amp; Safety</td>
<td>X X</td>
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<tr>
<td><strong>Departmental Research: 5 hours</strong></td>
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<tr>
<td>ENH 699: Masters Level Project Research</td>
<td>X X X</td>
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<tr>
<td>ENH 699: Masters Level Project Research</td>
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<tr>
<td><strong>Departmental Electives: 6 hours</strong></td>
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<tr>
<td><strong>Internship: 3 hours</strong></td>
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<tr>
<td>ENH 697: Internship in Environmental Health</td>
<td>X X X</td>
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<tr>
<td><strong>Total Hours Earned for Degree (minimum 47 required)</strong></td>
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</table>
INTRODUCTION
The Master of Science in public health (MSPH) degree is designed to provide an intensive educational experience for students with or without previous experience in the desired track of study. Environmental health professionals must be able to recognize, evaluate, and control environmental situations that may lead to disease. They may also require knowledge in designing and conducting studies of environmental chemicals to assess the probability that environmental toxic agents present a risk to humans and/or the environment and to define safe limits of human exposure to them. There is one MSPH track within the department: Environmental Health. See the MSPH fifth year option for UAB students.

CURRICULUM REQUIREMENTS
The curriculum is designed for the full-time student and therefore conflicts in scheduling may occur if courses are taken out of sequence or on a part-time basis. Students are admitted in the fall semester and should follow the appropriate program's curriculum outline.

ADVISOR
An academic advisor is appointed for each new student at the time of admission. A student may request a change in advisor at anytime; however, all changes in advisor must be submitted on the appropriate form and approved by current advisor and Department Chair. (See program coordinator for form)

Research Advisor
During the first year of study, MSPH Thesis students should discuss their research interests with all faculty in the department. By late spring semester, the student will identify and request one faculty member to be the research advisor for his/her project research committee. Be aware that in some cases faculty members of choice may not be able to comply with a request to be research advisor since this workload must be distributed roughly evenly among the faculty.

The research advisor also serves as the student's academic advisor. When there is a change of advisor, the student should advise the Program Coordinator and submit the appropriate form to the Office of Student and Academic Affairs.

THESIS RESEARCH
Students in the MSPH program do a masters thesis and must earn at least 14 hours in conduct of their thesis research. The thesis is based on an "apprenticeship" relationship between the student and his/her research advisor. The research advisor will be responsible for all aspects of the thesis research; however, a graduate committee must approve the ultimate work.

The committee should consist of at least three Graduate School faculty members, one of whom should be from outside the student's graduate specialization and each of whom should be able to bring some relevant insight and expertise to guide the student.

Recommendations for graduate study committee membership are submitted by the advisor and the student to the graduate program director, who subsequently submits these recommendations to the Graduate School Dean.

Preproposal
Spring Semester of the First Year. During the spring semester of the first year, the student should have selected a research advisor. A "Change of Advisor" form should be completed if the research advisor is different from the academic advisor. The student will present the advisor with a one- to two-page description (preproposal) of the problem to address, general strategy and expected outcomes before the end of the spring semester.

Proposal
By the fall semester of the second year, the student will register for ENH699-Master's Level Project Research. Early in the semester the advisor and student will develop
a research project committee consisting of three members. An "Appointment of Research Project Committee Approval Request" form should be completed.

A draft of the research proposal is due to the advisor one week before the end of the fall semester.

**Spring Semester.** The student will register for ENH699. The student should schedule a proposal meeting by the end of January. After the proposal is accepted by the committee, an “Application for Admission to Candidacy for the Master’s Degree” must be completed, then the student may conduct the research work. The student should meet often with his/her advisor, and with other committee members as appropriate, to discuss the status of work and problems.

**Final Defense**
A first draft of the thesis should be presented to the advisor. After the thesis is acceptable to the advisor, a final defense may be scheduled.

A memorandum and a copy of the thesis will be sent to the committee members and the Dean of the Graduate School. After a successful defense, the research advisor is responsible for obtaining signatures on the “Recommendation for the Master’s Degree-with Committee”. The student must make any necessary corrections to the report and deliver it to the advisor. Once the advisor acknowledges that all changes have been made, the student will submit it to the graduate school and provide the department with one original report (for binding) on 25% bond / or archival paper.

In addition, the department requires:
- that the student provide his/her advisor with a diskette containing the document and data,
- clean up the lab area that he/she occupied
- correctly dispose of any hazardous material used
- and, turn in keys (or proof that keys were turned in to UAB Key Control).

**APPLICATION FOR DEGREE**
A student must be registered for at least 3 hours in the semester they intend to graduate. At the beginning of the semester of anticipated graduation (usually spring), the student will complete an "Application for Degree" form, which can be obtained online at [https://www.soph.uab.edu/graduation/graduationforms](https://www.soph.uab.edu/graduation/graduationforms).

In order to graduate, all degree requirements must be satisfied and all I, and N grades must be removed. The department will be responsible for assuring that all department requirements have been met (see checklist below). If all requirements are satisfied, the advisor will complete a "Diploma Release" form, which will be sent to him from the School’s Office of Student and Academic Affairs.

**AWARD OF DEGREE**
Upon approval of the School of Public Health Assistant Dean for Academic Affairs and payment of outstanding financial obligations to the university, the candidate will receive the degree of Master of Science in public health. Diplomas are issued at the end of each semester. Degrees are formally awarded at commencement exercises in December and June.

If the new graduate wishes to participate in the ceremony, a cap and gown must be bought by the graduate through the UAB Bookstore before the event. Contact the UAB Bookstore for more information. Please see the UAB Graduate School’s website for further requirements.
SUMMARY OF PROCEDURES FOR THE MSPH DEGREE

- Completion of first year coursework and appointment of research advisor
- Completion of a proposal and appointment of a research committee
- Admission to candidacy
- Application for degree first of final semester
- Successful defense of Thesis
- Provide department with one copy of thesis.
- Provide advisor with diskette containing document and data
- Clean up lab area utilized and properly store all supplies
- Correctly dispose of hazardous /biological/radioactive wastes
- Turn in keys
- Payment of appropriate fees by student
- Graduate program director sends School of Public Health all final papers
<table>
<thead>
<tr>
<th>Course Name</th>
<th>Term Course Available</th>
<th>Credit Hours</th>
<th>Term / Year Taken</th>
<th>Grade</th>
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<td>BST 612: Intermediate Statistical Analysis II</td>
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<td>ENH 600: Fundamentals of Environmental Health Sciences</td>
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<tr>
<td>ENH 650: Essentials of Environmental &amp; Occupational</td>
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<td>Toxicology &amp; Diseases</td>
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<td><strong>Environmental Health Electives - 3 hours</strong></td>
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<td>X X X 3</td>
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<td><strong>Masters Level Research - 13 hours</strong></td>
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<tr>
<td><strong>Seminar / Journal Club - 5 hours</strong></td>
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<td>X X</td>
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<td><strong>Minimum Credit Hours Required</strong></td>
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</table>

*Students receiving a PhD, MSPH or MS are required to complete a 12 ½ hour WebCT course entitled “Overview of Public Health” by the end of their second semester. Students with prior public health education (coursework in each of the public health core disciplines) or experience (5 years in public health) may be waived from this requirement by permission of the Associate Dean.*