# Department of Environmental Science and Policy Guidelines for Authorship

As drafted by the Ad Hoc Committee on Authorship Issues, September 26, 2012 and minor revisions November 2, 2012 – Approved by ESP Faculty November 6, 2012

# Objective

Recognizing that the research enterprise necessitates effective, attributed communication of original works by scholars, the faculty of the Department of Environmental Science & Policy outline below general guidelines for attribution of authorship for intellectual property. Because the definitions and appropriate order of authorship differ among the various disciplines and professional journals, as may standards for "substantial" and "scholarly efforts" or the extent to which authors must participate, students and faculty of the Department and their collaborators are encouraged to read and discuss these guidelines prior to entering into, at the inception of, and/or at critical stages of collaborative research and academic partnerships.

# 1. Academic Scholarship

Scholarship is the creation of new knowledge in an academic setting based on research or experimentation and includes all fields of the academic enterprise including history, philosophy, and science. Scholarship may take the form of presented papers at meetings and symposia (poster or platform), peer-reviewed articles, technical reports, policy papers, and other oral and written forms of communication in various venues (e.g., patent applications, submission of DNA sequences to online meta-databases). As joint research is common and often desirable, especially in a faculty-student mentoring relationship, authorship should reflect the level and type of contribution of each collaborator to the final product. To that end, we provide the following guidelines regarding criteria for establishing which activities receive attribution on scholarship arising from collaborative research.

#### 1.1 Criteria for Authorship

Authorship should be restricted to those individuals who have made a substantial contribution to all of the following:

- 1. <u>Scholarship</u> This includes the conception and design of experiments or other research, analysis and interpretation of data, execution of research, or other substantial scholarly effort.
- 2. <u>Writing</u> This includes drafting manuscripts and revising and review texts for intellectual content.
- 3. Approval This includes approving final version of drafts for submission or publication.

## 1.2. Criteria for Acknowledgment

Acknowledgement within the text of the article should include those who have contributed in one or more of the following ways:

- 1. Acted as peer reviewers or minor editors of the manuscript (anonymous or identified).
- 2. Assisted in the research by their encouragement, advice, or consultation.
- 3. Provided space or financial support.
- 4. Worked as paid professional or assisting staff. (Paid employees may qualify for authorship under the above authorship criteria.)

## 2. Decisions regarding lead author and co-authorship

#### 2.1. Definitions

First author – The first author should be that individual making the largest contribution to the three criteria for authorship, and in general, will be the individual responsible for the majority of writing.

Corresponding author – The corresponding author is responsible for submitting the document, drafting letters to the editor as appropriate, providing contact with journal editors or reviewers, and overseeing revisions. Because the corresponding author is responsible for communicating the research to the journal or publication source, he or she has the primary responsibility for 1) determining who to recognize as an author and who to acknowledge and ensuring that all appropriate potential authors (those falling under criterion 1 above) are included in all correspondence during the writing, submitting, and revising of the paper, 2) acting as the corresponding author, and 3) guaranteeing that all information in the article meets professional standards of research integrity for both the field and the specific publication venue. The corresponding author will not add or delete authors from a manuscript submitted for publication without consent of those authors. Likewise, the corresponding author will not include as coauthor(s) any individual who has not agreed to the content of the final version of the manuscript.

Senior author – When not the first author, senior author is taken to mean the major advisor, lab director, or other mentor as appropriate to the field under whose direction the research was completed, data were collected, and the manuscript(s) drafted. The senior author may be expected to take a lead role in guiding the corresponding or first author in the event that the corresponding or first author does not have sufficient publication experience.

#### 2.2. Considerations of co-authorship

Co-authors, as overseen by the corresponding author, are responsible for monitoring their involvement and progress throughout the duration of the research project and the preparation and submission of the scholarship. When making decisions regarding inclusion in authorship, the corresponding author should follow the guidelines below.

#### **Collaborators**

1. Individuals who contribute to the development of hypotheses; design and or execution of experiments or scholarship; analyze and interpret or provide substantial new data; or who otherwise meet the criteria for authorship above should be granted co-authorship. This includes those individuals who are principle investigators or co-principal investigators on the

grants or proposals that have provided research goals and hypothesis. These individuals may include laboratory directors/managers when those individuals are not the primary mentor or advisor if that individual plays a lead role in the design and execution of the experiments and/or scholarship being published.

Ownership and disposition of intellectual property developed by students while employed by the university, including undergraduates and graduate research and teaching assistants, is governed by university policies generally applicable to employees. Generally, copyrightable and patentable works, including dissertations, developed in connection with course work by students who are not Mason employees, are deemed to belong to the student. When making decisions regarding inclusion in authorship, the corresponding author should follow the guidelines below.

#### Students

- 1. Students should be authors of publications arising wholly or mainly from their theses or dissertations.
- 2. Students who contribute to scholarship resulting in a publication as part of Research Assistantships should be granted co-authorship if they meet the above criteria for authorship.
- 3. Students who contribute to research resulting in a publication as part of credit-bearing individualized sections or courses should be granted co-authorship if they meet the above criteria for authorship.

#### Employees, technicians, and/or volunteers

 Students or individuals hired on wages or provided monetary compensation or who volunteer, and who do not fall under 1-3 above, will not normally be granted co-authorship rights unless they meet the criteria for authorship above, but they should be considered for formal acknowledgement in the publication.

## 3. Conflict and Dispute Resolution

Below is a recommended sequence of steps to be followed if affected individuals feel these guidelines have been violated.

- 3.1 Disputes regarding and/or initiated by Students
  - 3.1.1 Negotiate with mentor and/or primary and corresponding authors
  - 3.1.2 Negotiate with committee
  - 3.1.3 Negotiate with Department Chair
  - 3.1.4 Report to College Grievance Committee
- 3.2 Disputes regarding and/or initiated by GMU Collaborators
  - 3.2.1 Negotiate with primary and corresponding authors
  - 3.2.2 Negotiate with Department Chair
  - 3.3.2 Report to College Grievance Committee
  - 3.3.3 Report to GMU Office of Research Integrity and Assurance
- 3.3 Disputes regarding and/or initiated by External Collaborators

- 3.3.1 Negotiate with primary and corresponding authors
- 3.3.2 Negotiate with Department Chair
- 3.3.3 Report to GMU Office of Research Integrity and Assurance
- 3.3.4 Report to Office of Research Integrity if use of Federal Funds involved.

# **Appendix**

University Policy Number 4002: Copyright in University Works <a href="http://research.gmu.edu/OSP/PolicyAndProcedure/NewCopyrightPolicy.html">http://research.gmu.edu/OSP/PolicyAndProcedure/NewCopyrightPolicy.html</a>

University Policy Number 4007: Misconduct in Research and Scholarship <a href="http://universitypolicy.gmu.edu/407.doc">http://universitypolicy.gmu.edu/407.doc</a>