## **BIOSTATISTICS DEPARTMENT**

Chair: P. Qiu

Associate Chair for Education: B. Brumback

Graduate Coordinator: K. Cason

The Department of Biostatistics offers the Doctor of Philosophy degree in biostatistics (p. 1), the Master of Science degree in biostatistics (http://biostat.ufl.edu/education/ms-in-biostatistics/), and the Master of Public Health degree with concentration biostatistics, which is described in detail in the Public Health section of the catalog. These programs in the Department are designed to prepare students for research and faculty positions; careers in health agencies and health-related institutions; and for consultation, especially in the biomedical fields. Although each graduate program has a set of required courses, there is ample flexibility in the programs to allow each student to develop strengths and interests through elective courses, seminars, and tutorials.

## **Doctor of Philosophy**

The biostatistics doctoral program requires a minimum of 90 semester credits beyond the bachelor's degree. All students must complete a minimum of 54 credits of biostatistics/statistics course work (30 credits can be transferred from a previously earned Master of Science program if applicable), 6 credits of public health course work, 3 credits of a consulting requirement, 6 credits of the cognate requirement, and 21 credits of dissertation work.

All graduates of the program are expected to be able to

- Conduct independent research in the development of new biostatistical methodology
- Engage in successful collaborations with investigators in new quantitative fields
- Write statistical methodology papers for peer-reviewed statistical and biostatistical journals
- · Write collaborative papers for peer-reviewed subject matter journals
- Compete successfully for research and teaching positions in academic institutions, federal and state agencies, or private institutions

Specific course requirements are described at the program website http://biostat.ufl.edu/education/phd-in-biostatistics/curriculum-overview/.

#### **Master of Science**

The Master of Science in Biostatistics Program in the Department of Biostatistics requires a minimum of 36 post-baccalaureate credit hours. The program is designed to facilitate students' development of a strong theoretical foundation in biostatistics, broad-based understanding of biostatistical methods, and expertise in a cognate field. A typical student will be enrolled full-time for two years. Upon successful completion of the program, graduates will be awarded an M.S. degree in biostatistics. We currently offer the Master of Science program in both traditional (campus) and online learning delivery methods.

The principal goal of the M.S. program is to prepare highly qualified individuals for future Ph.D. training and for careers in biostatistics practice. This training is conducted in the innovative and interdisciplinary public health culture of the college of public health and health professions and the college of medicine and will produce graduates who will help address the shortage of biostatisticians. We expect our

graduates to be highly competitive in three primary settings: academic university-based settings, industry, and federal agencies that involve research and/or public health practice.

Specific course requirements are described at the program website http://biostat.ufl.edu/education/ms-in-biostatistics/ (Campus) and http://biostat.ufl.edu/education/msonline/ (Online).

#### Majors

 Biostatistics (PHHP) (http://gradcatalog.ufl.edu/graduate/collegesdepartments/public-health-professions/biostatistics/biostatistics/)

#### **Faculty**

#### **Professor**

- · Datta, Somnath
- · Datta, Susmita
- · Lee, Ji-Hyun
- · Longini, Ira M.
- · Lu, Qing Terry
- · Qiu, Peihua
- · Shan, Guogen
- · Wu, Samuel Shangwu

#### **Associate Professor**

- · Chen, Li
- · Guha, Subharup
- · Li, Zhigang
- · Xiao, Feifei

#### **Assistant Professor**

- · Berube, Sophie Christine
- · Hitchings, Matthew David Thomas
- · Liang, Muxuan
- Roy, Arkaprava

## **Research Associate Professor**

- · Kairalla, John Andrew
- · Naranjo, Arlene H.

## **Clinical Assistant Professor**

- · Fischer, Jonathan R.
- · Foti. Steven J.
- · Parker, Robert L.
- · Wang, Lixia

#### **Research Professor**

· Lou, XiangYang

## **Research Assistant Professor**

- · Brant, Jason Orr
- · Lin. Tuo
- · Xue, Wei

# **Courtesy Professor**

Yang, Yang

# **Affiliated Faculty**

- Bacher, Rhonda Leigh Associate Professor
- Cai, Guoshuai
  Assistant Professor
- Doss, John Professor
- Ghosh, Malay Distinguished Professor
- Pei, Qinglin Associate Professor

#### Courses

#### **BIOSTATISTICS**

| Code      | Title   | Credits |
|-----------|---|---------|
| GMS 6827  | Advanced Clinical Trial Methods                                   | 3       |
| PHC 6020  | Clinical Trial Methods  | 3       |
| PHC 6022  | Design and Conduct of Clinical Trials                             | 3       |
| PHC 6050C | Biostatistical Methods I  | 3       |
| PHC 6051  | Biostatistical Methods II   | 3       |
| PHC 6059  | Introduction to Applied Survival Analysis                         | 3       |
| PHC 6063  | Biostatistical Consulting   | 3       |
| PHC 6064  | Survey of Advanced Biostatistical Methods for the Health Sciences | 3       |
| PHC 6075  | Biostatistical Literacy   | 3       |
| PHC 6084  | Bayesian Biostatistical Methods                                   | 3       |
| PHC 6088  | Statistical Analysis of Genetic Data                              | 3       |
| PHC 6089  | Public Health Computing   | 3       |
| PHC 6092  | Introduction to Biostatistical Theory                             | 3       |
| PHC 6097  | Statistical Learning with Applications in Health Sciences         | 3       |
| PHC 6099  | Programing Basics for Biostatistics                               | 3       |
| PHC 6736  | Statistical and Computational Analysis of Genomic Data            | 3       |
| PHC 6790  | Biostatistical Methods Using SAS                                  | 3       |
| PHC 6791  | Data Visualization in the Health Sciences                         | 3       |
| PHC 6905  | Independent Study   | 1-6     |
| PHC 6937  | Special Topics in Public Health                                   | 1-6     |
| PHC 7056  | Analysis of Longitudinal Data                                     | 3       |
| PHC 7066  | Large Sample Theory   | 3       |
| PHC 7068  | Biostatistical Computing  | 3       |
| PHC 7090  | Advanced Biostatistical Methods I                                 | 3       |
| PHC 7091  | Advanced Biostatistical Methods II                                | 3       |
| PHC 7095  | Advanced Statistical Learning for                                 | 3       |
|           | Biostatistics   |         |
| PHC 7925  | Biostatistics Journal Club  | 1-3     |
| PHC 7979  | Advanced Research   | 1-12    |
| PHC 7980  | Research for Doctoral Dissertation                                | 1-15    |
| STA 6177  | Applied Survival Analysis   | 3       |
| STA 6707  | Analysis of Multivariate Data                                     | 3       |
| STA 7179  | Survival Analysis   | 3       |
|           |   |         |

# **College of Public Health and Health Professions Courses**

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|-----------------------|---|---------|--|
| Code                  | Title                                       | Credits |  |
| GEY 5935              | Topics in Gerontology                       | 3       |  |
| GEY 6220              | Overview of Geriatric Care Management       | 3       |  |
| GEY 6306              | Interpersonal Communication Within the      | 3       |  |
|                       | Aging Network                               |         |  |
| GEY 6646              | Issues and Concepts in Gerontology          | 3       |  |
| GEY 6936              | Professional Development in Gerontology/    | 1-2     |  |
|                       | Geriatrics                                  |         |  |
| HSC 6905              | Independent Study                           | 1-3     |  |
| HSC 6910              | Supervised Research                         | 1-5     |  |
| HSC 6940              | Supervised Teaching                         | 1-5     |  |
| PHC 6053              | Regression Methods for the Health and Life  | 3       |  |
|                       | Sciences                                    |         |  |
| PHC 6193              | Qualitative Data Analysis                   | 3       |  |
| PHC 6195              | Health information for Diverse Populations: | 3       |  |
|                       | Theory & Methods                            |         |  |
| PHC 6447              | Ecology of HIV/Aids in the Rural South      | 3       |  |
| PHC 6726              | Integrated Mixed Methods Research in        | 3       |  |
|                       | Epidemiology                                |         |  |
| PHC 6917              | Supervised Research Project                 | 1-6     |  |
| PHC 6945              | Public Health Practicum                     | 1-6     |  |
| PHC 6946              | Public Health Internship                    | 1-9     |  |
| PHC 7587              | Theory Development and Testing in           | 2       |  |
|                       | Behavioral & Community Public Health        |         |  |
| PHC 7907              | Social and Behavioral Science Journal Club  | 1       |  |
| RCS 6036              | Or to Forensic Vt P                         | 3       |  |
| RCS 6601              | Forensic Rehabilitation Consultation I      | 3       |  |
| RSD 6110              | Rehabilitation Science Theory and           | 3       |  |
|                       | Application I                               |         |  |
| RSD 6905              | Individual Work                             | 1-4     |  |
| RSD 6910              | Supervised Research                         | 1-5     |  |
| RSD 6930              | Special Topics in Rehabilitation Science    | 1-4     |  |
| RSD 6940              | Supervised Teaching                         | 1-3     |  |
| RSD 7979              | Advanced Research                           | 1-12    |  |
| RSD 7980              | Research for Doctoral Dissertation          | 1-15    |  |