Pitt Public Health biostatics core course policy

GSPH Biostatistics Core Course Policy
March, 2012

Purpose
The purpose of this policy statement is 1) to clarify the distinction between requirements for professional degrees and for academic degrees (as defined by The Council on Education for Public Health (CEPH), and 2) to delineate a revised policy for biostatistics core courses for GSPH professional degrees.

GSPH degree types
For the purposes of CEPH accreditation, there are three types of degrees offered by the GSPH: professional public health degrees (all MPH and DrPH degrees), other professional degrees (MHA and MS in Genetic Counseling), and academic degrees (all other MS and PhD degrees).

Policy for ACADEMIC and OTHER PROFESSIONAL degrees
Neither CEPH nor the GSPH requires any specific biostatistical training. Thus statistical requirements for each of these degree programs are at the discretion of the department offering the degree, though degree programs as a whole need to be approved by the Educational Policy and Curriculum Committee (EPCC), by the University, and by CEPH.

Policy for PROFESSIONAL PUBLIC HEALTH degrees
For MPH and DrPH degrees, the GSPH and CEPH require that all students take or be formally exempted from a course that addresses the core biostatistical competencies necessary for a public health professional degree. This requirement can be met by any of the following, though many departments have more specific requirements. Students should choose among these options in close consultation with their advisors.
1) BIOST 2011
2) BIOST 2041 AND 2042 (both must be taken)
3) In special circumstances and with the permission of both the student's advisor and the Department of Biostatistics, other introductory statistics courses may be substituted for the above, including BIOST 2014, certain PSYED courses, and certain STAT courses. However, any course or course sequence that is substituted must cover the majority of statistical methods that are used in the public health literature, and should ideally include public health application examples.
# Pitt Public Health Introductory Biostatistics Classes

<table>
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<tr>
<th>Course</th>
<th>Methods Covered</th>
<th>Mathematical Level</th>
<th>Software</th>
<th>Recommended For</th>
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<tr>
<td>BIOS 2011</td>
<td>Introductory overview of biostatistics for non-majors. Topics include: descriptive statistics, probability and probability distributions, confidence intervals, one and two sample hypothesis tests, ANOVA, non-parametric tests, linear regression, survival analysis, and study design.</td>
<td>Students should be comfortable with algebra.</td>
<td>Minitab/SPSS</td>
<td>Students who need a broad survey of statistical methods in a one semester, and whose mathematical background is limited.</td>
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<td>BIOS 2014</td>
<td>Basic principles and practice of data analysis for students in one semester. Topics include: data management; graphics; basic probability; one and two-sample inference; generalized linear models; survival analysis.</td>
<td>Students should be proficient in pre-calculus algebra.</td>
<td>R</td>
<td>Students who need a broad survey of statistical methods in one semester, and whose work is laboratory-based.</td>
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<tr>
<td>BIOS 2041</td>
<td>First semester of a two semester sequence on basic biostatistics for public health students. Topics include: basic probability, descriptive statistics, populations and sampling distributions, one-sample and two-sample inference for Normal and Binomial data, basic non-parametric procedures.</td>
<td>Students should be proficient in pre-calculus algebra.</td>
<td>Stata with some SAS examples</td>
<td>Students who require a more in-depth treatment than BIOS 2011 offers, and who are planning to take both BIOS 2041 and 2042. BIOS 2041 alone is not recommended, as it only covers a subset of biostatistical methods in public health.</td>
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<tr>
<td>BIOS 2042</td>
<td>Second semester of a two semester sequence on basic biostatistics for public health students. Topics include: univariate linear regression, analysis of variance, inference for the Poisson distribution, basic survival analysis.</td>
<td>Students should be proficient in pre-calculus algebra.</td>
<td>Stata with some SAS examples</td>
<td>Students who have taken BIOS 2041 and want to complete their survey of basic biostatistics. BIOS 2014 is not recommended as a prerequisite for BIOS 2042.</td>
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