

# **Developing an undergraduate biostatistics program: Challenges and successes**

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Universities around the world are starting to address the shortage of qualified industrial and academic biostatisticians by developing, implementing and funding undergraduate and post-graduate programs in applied statistics and biostatistics. As can be anticipated, the development of these programs is often met with unanticipated challenges as well as occasional pleasant surprises.

This poster outlines the experiences of the author in developing an undergraduate minor and major in biostatistics at Loyola University Chicago (U.S.). Both the minor and major help train students for future work, and the minor also helps to distinguish our pre-med majors in their applications to medical school. In all courses in this program, course projects and presentations have proven very useful, and these will be illustrated. One specific course, titled Advanced Biostatistics, and which provides an essential capstone course, will be highlighted in detail. Finally, some challenges - such as those involving forging contacts between Departments of Math & Statistics and in medical schools, as well as dealing with administrators only interested in profitability - will be underscored. Several examples will be given from quantitative biology highlighting the need for sophisticated statistical techniques.