NBCE'S PSYCHOMETRIC SUMMER INTERNSHIP 2022
The Internship may be offered in-house or online in Colorado

Overview. The National Board of Chiropractic Examiners (NBCE) is an independent third-party testing agency for the chiropractic profession. Headquartered in Greeley, Colorado, USA, the NBCE was incorporated in 1963; it administered its first exams in 1965. The NBCE was created to meet the regulatory needs of state licensing boards. NBCE's exams include testing of pertinent clinical decision-making as well as assessment of appropriate patient interactions. Today, all 50 states and the District of Columbia require successful completion of the NBCE examinations for licensure, providing the chiropractic profession a single pathway to licensure.

The mission of the NBCE is Ensuring Professional Competence through Excellence in Testing. In support of that mission, we design and administer assessments that are useful for the chiropractic profession, its regulators, and the public at large. As the global leader in chiropractic testing, we understand the importance of advancing assessments in the 21st century. To promote excellence in measurement, the NBCE is offering the Psychometric Summer Internship. The intern will contribute to the innovation and advancement through involvement in the NBCE's testing programs.

The NBCE's Psychometric Summer Internship is a two-month program beginning on June 1, and ending on July 29, 2022. The intern will have an opportunity to work with the psychometric team through scoring cycles of two programs—the Part II (Chiropractic Clinical Sciences Examination) and Part IV (Practical) exams. The intern will collaborate with the staff in the NBCE's Department of Psychometrics and Research under the supervision of the Director. All finalized deliverables will be provided to the NBCE at the completion of the internship. The intern may be invited to return to the NBCE after the internship to present the report and findings of the long-term collaboration.

The intern may have an opportunity to propose a research project using NBCE's data. This project may be long-term and continue beyond the internship dates. The details of such collaboration will be established with the intern on an individual basis.

Internship Description. The internship will offer an opportunity to work with the operational data from NBCE's routine testing programs, and developing a project that fits the intern's research interest, as well as the overall NBCE's needs. The intern will have an opportunity to:

- Observe and participate in the complete cycle of operational scoring:
    - Data validity verification
    - Analyses based on Classical Test Theory (Diagnostic Item Analysis)
    - Post-exam review
    - Item calibration using 3PL and Graded Response models
    - Scaling and equating
    - Reporting testing results
- Collaborate on NBCE's current research projects that may lead to conference presentations and/or publications in peer-reviewed journals
- An opportunity to propose a project/dissertation using NBCE's data

- Continue to collaborate with NBCE staff beyond the internship until the completion of the project

Areas of Possible Research Interests

- Computer Adaptive Testing (CAT): delivery algorithms, scoring
- Practical competence assessment (Objective Structured Clinical Examinations): test design, scoring
- Psychometric methods with latent variables
- Score stability (anchor stability) and parameter shift studies
- Equating and scaling methodologies
- Methodologies for setting the standards

Qualifications

- University of Northern Colorado, Department of Applied Statistics and Research Methods doctoral student. Preference will be given to doctoral students in their final stages of the program.

- Proficiency in Linear Modeling (OLS regression), proficiency in Generalized Linear Modeling (Binary and multinomial logistic regressions, Poisson regression), MANOVA-related techniques (Discriminant function analysis, Canonical correlation, Factor Analysis) Psychometrics Theory: Classical Test Theory, and Item Response Theory.

- The candidate should be proficient in a data management software (at least one: SAS, SQL, R), a software for statistical modeling (at least one: SAS, SPSS, R, STATA), and a software for modeling with latent variables (M*plus*).

Compensation. The NBCE's Psychometric Intern will be paid an hourly rate of $ 23.25. <u>The work hours are not to exceed 30 hours per week</u>.

Application Procedure. Applicants should submit a curriculum vitae, a graduate school transcript (does not need to be official), a writing sample, and a statement of purpose describing the interest in the internship and general research interests. Application materials should be emailed or mailed to the NBCE and must be received by **April 30, 2022.** The internship recipient will be announced by **May 15, 2022**. Materials and/or questions should be submitted to:

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