RHODES UNIVERSITY Grahamstown • 6140 • South Africa	**Faculty/Division/Office/ Unit/Entity/Institute**	Science	**Job Grade Intern**

			NAME
JOB TITLE	Graduate Intern (Instrumentation Scientist Intern, EPMA laboratory)	**INCUMBENT**	Vacant
DEPARTMENT/SECTION	Department of Geology	**LINE MANAGER**	(Senior) Instrument Scientist
JOB TYPE	Instrument Scientist	**HEAD**	Head of Department Prof. S. Prevec
PERMANENT OR CONTRACT (IF CONTRACT – LENGTH OF CONTRACT)	Contract	**FULL-TIME OR PART-TIME (IF PART-TIME HOW MANY HOURS PER DAY)**	Full-Time
COUNCIL FUNDED POST OR OUTSIDE FUNDED	Council	**DATE APPROVED**	July 2015

MAIN JOB OBJECTIVE/S
The job of the INTERN is to assist the instrument scientist as appropriate to the level of competency of the intern and within the time constraints for training and supervision by the IS. The main purpose of the job of instrument scientists is to support the research of an academic department through the management, maintenance and use of complex analytical instruments or instrument clusters including related auxiliary equipment. A secondary but related purpose is also to further research in the department through the training and supervision of post-graduate students and other instrument users, and through own research. The Instrument Scientist manages the Electron Probe Micro-Analyzer (EPMA) laboratory and represents it within and outside Rhodes University.

DESCRIPTION OF KEY RESPONSIBILITY AREAS	***STANDARD EXPECTED***
a) Technical obligations (approximately 50% of time) • Careful instrument calibration ensuring that the highest possible data quality may be realized • Routine maintenance of the EPMA and related equipment, such as the carbon coating equipment. • Monitoring of the physical laboratory environment and provision of stable high-quality laboratory conditions • Day-to-day operation of the instrument and auxiliary equipment • Monitoring of sample quality • Monitoring of data quality • Security and safety matters • The IS EPMA also assists with analytical problems to be solved using similar analytical equipment (e.g. SEM-EDS, XRF).	High quality support that meets the needs of academics and post-graduates is provided. The laboratory is kept in good working order and problems are resolved efficiently and effectively. Work produced is of a high quality, with little to no monitoring of the quality of work required by the line manager. Data produced are of a high quality and reported in a form appropriate to the needs of the user/client. Research is typically focused on the EPMA analytical methods or carried out as collaborating analyst or co-supervisor of postgraduate students where such projects require heavy use of EPMA.
b) User training (approximately 25% of time) The Instrument Scientist is not involved in standard curriculum teaching but is responsible for user training at various levels. This may include: • low level training for users who wish to use the instrument only on single occasions or for testing purposes • medium level courses for small project clients (e.g. Honours level projects with only short time of instrument utilization) • in-depth training for heavy users and advanced users (MSc/PhD, post-doctoral level; professional scientists) • regular training courses offered to the scientific community beyond Rhodes University in order to raise the profile of RU	Training is appropriate to the level of users and meets user needs. Training is presented in an appropriate and professional manner.

analytical facilities. (A track record of such courses increases the chances of success of applications for equipment funding). In-depth user training may include • Analytical options of the instrument • Data reduction and data processing • Evaluation of data quality • Data documentation c) Administrative and management obligations (approximately 25% of time) • Organisation of access rules and instrument availability • Organisation of data storage and data transfer to users • Maintenance of the laboratory website • Organisation of user schedules • Record keeping in form of a laboratory log book • Record keeping of scientific outputs of the laboratory (theses, conference abstracts, journal articles, technical reports, etc.) In addition the Intern may train one or more other staff members as instrument operators in order to allow for uninterrupted laboratory operation in the absence of the IS.	Administration is done efficiently and effectively in support of the work of the laboratory. Interaction with users is courteous, respectful and oriented towards providing a service and supporting of research. Promotion of the activities of the laboratory is proactive and effective.

	Intern to Instrument Scientist
Qualification	Normally an Honours but an BSc may be appropriate in some instances
Experience of specific equipment	• Basic understanding of mineral chemistry, mineral physics, and in-situ analysis of common rock forming minerals using EPMA. • No prior familiarity with instrument is expected.
Experience: technical; maintenance and laboratory management	• Experience with geological or chemical analytical equipment preferred, but not mandatory.
Academic/ scientific qualification	• An Honours or equivalent (B.Sc. plus experience) degree in Geology or Analytical Chemistry.
Leadership, management and administration	• No prior experience expected.
User Training (User courses at various levels, offered to staff, postgraduate students, researchers, etc.)	• No prior experience expected.
Professional Involvement (lesser focus of application except at levels of CIS)	No involvement required at time of appointment
Community Engagement	

Job profile based heavily on that of Instrument Scientist.
Updated for Geology: Prof S Prevec
Last updated: August 2015.