



Physics Instrumentation Service Center

UNF Major Physics Department Instruments:

- **SEM (imaging + EDAX chemical analysis)**
- **SQUID MAGNETOMETER (magnetization)**
- **PPMS (heat capacity, thermal and electrical conductivity)**
- **RAMAN SPECTROMETER**
- **AFM**
- **THERMAL and ELECTRON BEAM THIN FILM DEPOSITION SYSTEMS**

Director of SEM

The FEI Scanning Electron Microscope (SEM)+EDAX housed in the University of North Florida (UNF), Department of Physics Faculty Research Lab (50/1522) is administered by a *Director* who is appointed by the Chair of the Department of Physics. The *Director* is a UNF Physics faculty member who performs the SEM duties as part of his/her service assignment. The *Director* operates, trains and supervises other individuals on the proper use of the SEM. The *Director* schedules users' times on the instrument according to the priority order listed below, keeps a log book of the users that enumerates hours and time of usage, the user's account index that will be charged, and the type of user which will be classified as: 1. user engaged in teaching a UNF STEM class; 2. UNF STEM researcher a) who does not have an external grant; b) who has an external grant that does not allow for SEM charges; c) with an external grant that allows for SEM charges; and 3. an external or consultant user. The Physics Department Lab Manager (Dr. Phil Davis, former Vice-President of Research for Betz-Dearbon/Hercules) assists the *Director* in billing and invoicing users and managing the accounting. The *Director* also performs routine maintenance work for this instrument. All revenues are used to maintain the SEM. For 2012-2013 the Director is Dr. Nirmal Patel 620-1670 npatel@unf.edu

Charges* and Accounting

The revenue generated by the SEM from users is placed in a Physics Department Service Auxiliary Account. The following chart is used to determine the hourly charges, where in all cases a minimum of one hour is charged for each time the instrument is scheduled.

User Type and Priority Order

1. UNF Instruction (from a STEM departmental equipment fee index)	\$ 40/hr**
2. UNF Researcher who:	
a) does not have an external grant	\$ 40/hr**
b) does not have an external grant that allows SEM charges	\$ 40/hr**
c) has an external research grant that allows SEM charges	\$ 40/hr
3. External/Consultant User	\$ 200/hr
4. External Consultant User, running their own samples after training.....	\$ 100/hr

* Charges are reviewed biennially and are subject to revision when merited.

**Charges may be waived at the discretion of the Chair of the UNF Department of Physics

Control of the Instrument

The Chair of the UNF Department of Physics has administrative control of the SEM and all of the above stipulations are open to modification by the Chair of the UNF Department of Physics when he/she deems changes are warranted, within the constraints of the IRS, Office of Management and Budget (OMB) Federal and State of Florida laws. Any person violating the above terms and conditions may be subject to at least being barred from access to the SEM at the determination of the Chair of the UNF Department of Physics.