Attendees, or proxy.

Allan Dolovich	ME	5468	dolovich@dvinci.usask.ca	Faculty
Andreas Schiffler	PEP	6457	schiffler@skisas.usask.ca	Grad. Student
Andrei Smolyakov	PEP	6432	smolyakov@sask.usask.ca	Faculty
Chris Soteros	Math & Stat	6118	soteros@math.usask.ca	Faculty
David Steele	PEP	6447	David.Steele@usask.ca	Faculty
Doug Degenstein	PEP	6452	degenstein@skisas.usask.ca	Grad. Student
Duane Sniezek	Sci-Tec	934-7010	duanes@eagle.wbm.ca	Industry Partner
E.J.(Ted) Llewellyn	PEP	6441	llewellyn@skisas.usask.ca	Faculty
Eugene Furkal	PEP	653-4855	efurkal@plasma.usask.ca	Grad. Student
Eugene Ivanov	Sci-Tec	934-7010	scitec.eng@eagle.wbm.ca	Industry Partner
Eugene McDougall	PEP	6452	gene@irg.usask.ca	Grad. Student
Henry Caplan	PEP	6396	caplan@skatter.usask.ca	Faculty
Hugh Wood	EE	5391	woodh@engr.usask.ca	Faculty
Jeff Johnston	Sci-Tec	934-7010	jeffj@eagle.wbm.ca	Industry Partner
Jim Bugg	ME	5469	Jim_Bugg@engr.usask.ca	Faculty
John Steele	ME	343-1797	jas140@mail.usask.ca	Grad. Student
Matthias Huber	PEP	6457	matthias.huber@usask.ca	Grad. Student
Megan White	PEP	6452	white@irg.usask.ca	Grad. Student
Raj Srinivasan	Math & Stat	6128	raj@math.usask.ca	Faculty
Ron Bolton	EE	5412	Ron_Bolton@engr.usask.ca	Faculty
Ron Osterried	PEP	6457	osterried@dansas.usask.ca	Engineer
Sasha Kustov	PEP	6426	kustov@skisas.usask.ca	Faculty

Class Description

Phys 893.3 -- Special topics in Physics and Engineering Physics

This class will involve the preparation and submission of a Small Payload Proposal in response to the Canadian Space Agency Announcement of Opportunity dated July 31, 1996.

The class will use lectures and discussion groups to develop the material for the proposal. The students will be primarily associated with those groups that concentrate in their area of research interest, although they will necessarily interact with other groups. Each topic group will be led at least one faculty member. Throughout the class there will be an on-going involvement with the Industrial Partner associated with the response submission. For this class the Industrial Partner is Sci-Tec Instruments Inc. The involvement of an Industrial Partner is a CSA imposed condition of compliance. Students will learn from this class the required approaches to task definition, proposal response, project management as well advanced technical requirements in their area of interest.

The overall project, *i.e*. the submission, will be under the direction of a Principal Investigator who will be selected by the entire team, faculty and graduate students. However, the class will be led by a Proposal Adviser, E.J. Llewellyn.

The possible groups, and primary topics, are:

1. Scientific concept and feasibility.
2. Instrumentation design, power, mass budgets.
3. Data transmission, effects of noise, compression *etc*.
4. Electronics for Payload, including temperature, humidity *etc*. specification.
5. Risk and feasibility analysis.
6. Management, including cost.

There will be defined milestones in the preparation process and regular reviews. These will be used to assess the performance of the students. These reviews and the individual contributions to the final submission will be used to determine a final mark for this class. A necessary, but not sufficient, condition for the students to pass this class is that the submission be made to CSA and meet all dead-lines, *i.e*. be in Ottawa before 1600EST, January 3, 1997. The class will not involve any additional cost to the Department of Physics and Engineering Physics as it will use existing resources within the Department and the participating Research Groups.

Faculty and external advisers involved with the class.

Hugh Wood, Head EE, presently holds CSA contracts, atmospheric science expertise.
Duane Sniezek, VP R and D, Sci-Tec (Industrial Partner).
Eugene Ivanov, Optical Engineer, Sci-Tec (Industrial Partner)
Jeff Johnston, Atmospheric Scientist, Sci-Tec, (Industrial Partner)
Allan Dolovich, ME, Tomography expertise.
Jim Bugg, ME, Thermal expertise.
Ron Bolton, EE, Integrated Circuit expertise.
Chris Soteros, Math & Stat, Large scale Computing expertise.
Raj Srinivasan, Math & Stat, Noise modelling expertise.
Henry Caplan, Head PEP, Project Management expertise.
David Steele, PEP, presently holds CSA contracts, atmospheric imaging expertise.
Andrei Smolyakov, PEP, theoretical modelling expertise.
Sasha Kustov, PEP, atmospheric science expertise.
E.J. (Ted) Llewellyn, PEP, presently holds CSA contracts, PI for Odin.

The Canadian Space Agency
Space Science Program

Current flight program

rbit), **Shepherd, Cogger, Evans, *Llewellyn*,** Lov
(in orbit), **Cogger**, Murphree, King
nch 1999), Yau, Garbe, Knudsen, ***McEwen***
nch 1998), Drummond, *Davis*, Mand, McConne
March 12, 1998), ***Llewellyn,* Evans, *Degenstei***
cDade, **Solheim**, Strong
ments, ARF, Space-Vision

oorhouse, *Llewellyn*
ris, *Gattinger, Llewellyn,* *McDade*, Moorhouse,

nd Current Space Science opportunities

al) AO released October 1995.
January 1996. -- 22/6
ade, ***Degenstein, Llewellyn,*** **Solheim,** Strong, *Off*

released October 1996, Submission January 3

Program
eased July 31, 1996.
January 3, 1997.

loads on larger vehicles space shuttle, spacest
.

-Sat

ased following completion of negotiations wit
f an off-set payment for Canada's involvemen
. At present the capability *etc* is being debate
ASA demand that ACRIM be part of payload.

rtunities for International Collaboration.

Program

velopment of and provide launch opportunitie
ientific instruments proposed by Canadian res
junction with Canadian industry in areas of re
e overall national and international communit
nada and Canadians

nall payloads mission should result in signific
ts and understanding

provide the stability to sustain Canadian indus

must include at least one private sector partne

Program -- University of Saskatchewan appro
lewellyn)

University involved

on possible instrument/science

up that it could be done

artments and Graduate Studies that response t
e class

harriage with the Industrial partner

eam

anding submission