INCOSE Systems Science Charter

1 PURPOSE

Promote the advancement and understanding of Systems Science and its application to SE. Systems science provides a more rigorous, underlying basis to the empirically derived practices to systems engineering that have evolved over time.

2 GOALS

1. Highlight linkages between Systems Science theory and the empirical practice of Systems Engineering. (e.g. short, mid or long-term)
2. Promote awareness of Systems Science, its origins, and its possible futures.
3. Encourage advancement of Systems Science principles and concepts.

3 SCOPE

This WG addresses the Systems Science that provides an underlying foundation for all Systems Engineering (SE) throughout the life-cycle.

4 SKILLS AND EXPERTISE REQUIRED

The skills and expertise required for success are competencies in the systems science.

5 MEMBERS, ROLES AND RESPONSIBILITIES

List the names of members and briefly describe their responsibilities.

- Lead: James N. Martin
  - The lead shall be responsible for status reporting to the Assistant Director for Knowledge.
- Co-Lead: Duane Hybertson
  - The co-lead shall be responsible for supporting the lead in attaining the working group goals and outcomes.)

- There are 100+ members. Intellectual content, production schedules and action items are carried on the WG Wiki.

6 OUTCOMES (PRODUCTS/SERVICES)

1. Unified Systems Science Theory
2. System Pathologies Id & Characterization
3. Better SE for INCOSE
4. Unified Ontology of Science & Systems
5. Ontology of SE as a System
6. Formulation of Periodic Table of Systems
7. INCOSE mapping to MOSES Framework

8. Ontology for the BKCASE SEBoK
9. Synergies Between SS, SE & EOS.

7 APPROACH

The general approach that will guide this WG include:

- Meeting twice a year during the International Workshop and International Symposium
- Engage with leading Systems Science societies outside of INCOSE
- Wiki for collaborative sharing and growing of systems science knowledge
- Members present topics of WG interest and discuss in the Socratic tradition.

8 MEASURES OF SUCCESS

The overall measures of success for the WG are as follows:

- Number of INCOSE systems science papers presented at collaborating societies
- Number of collaborating society attendees at INCOSE workshops and symposia
- Number of products under development (as defined by individual TPP's)
- Number of products delivered.

9 RESOURCE REQUIREMENTS

Infrastructure support is as follows:

1. INCOSE web page www.incose.org/practice/techactivities/wg/syssciwg/
2. Wiki site sites.google.com/site/syssciwg/
3. Meeting space at INCOSE International Workshops and International Symposia
4. Travel funds to cover two INCOSE reps at ISSS meetings/conferences
5. Gratis for two ISSS reps at INCOSE workshops/ symposia

Items 4 and 5 are committed by the MOU between INCOSE and ISSS (International Society for the Systems Sciences) signed by the INCOSE Director for Strategy.

10 DURATION

This Charter remains in effect until rescinded by the signatory.

11 SIGNATURES

Enter the signature block of the submitter Date

INCOSE Systems Science Charter

1st Level of Approval

Technical Director, INCOSE Date August 2011

2nd Level of Approval (Note this will be added by the INCOSE Technical Director when deemed appropriate.)

Chairman, INCOSE Board of Directors Date

Revision History

Date	Revision	Description	Author
20110331	1.0	Initial Draft.	James N. Martin