# Computing Accreditation Commission

# Institutional Representatives' Orientation

**July 2010** 



Leadership and Quality Assurance in Applied Science, Computing, Engineering, and Technology Education

### Who Am I?

- Raymond Greenlaw
  - Professor of Computer Science
  - United States Naval Academy
    - Involved in computing accreditation for about 20 years
    - Still learning

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### **Session Intended For**

- Deans, Department Heads, Faculty, Administrators, Others
- Have submitted self-study for CAC evaluation in a fall 2010 visit
- Interested in issues relative to preparation for visit



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## **Expected Outcomes for Today**

- Know the roles of ABET, CAC, and CSAB in the accreditation process.
- Understand the CAC visit process.
  - What to do before the visit
  - How you can help the visit run efficiently and effectively
  - The official communications processes and accreditation action terminology
  - What happens after the visit

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## **Today's Plan**

- Review the ABET/CAC/CSAB structure.
- Review the CAC accreditation process.
- Discuss the visit and decision processes.
- Take a high-level look at the accreditation criteria structure and content.
- · Hold discussion based on your experiences.
- Hold other discussions as desired.
- Meet with team chair for visit.



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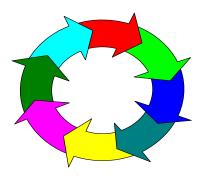
## **Logistics**

- Ask questions or make comments at any time.
- Lunch with TC 12:00-1:30 p.m.
- Orientation continues 1:30-3:00 p.m.
- Coffee break 3:00 p.m.
- Meet with TC as needed 3:15-5:30 p.m.
  - If a team chair has two visits, coordinate meetings.

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## **Purpose of Accreditation**



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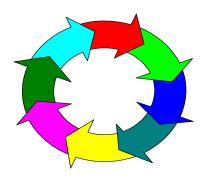
## Why Have Accreditation?

- To identify programs meeting minimum criteria for accreditation
  - For prospective students, parents, government, employers, and the public
  - For programs that are intended to prepare graduates to enter the profession
- Assurance of a minimum level of quality
- Assurance that a program is what it claims to be

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# Organizational Structure and Roles



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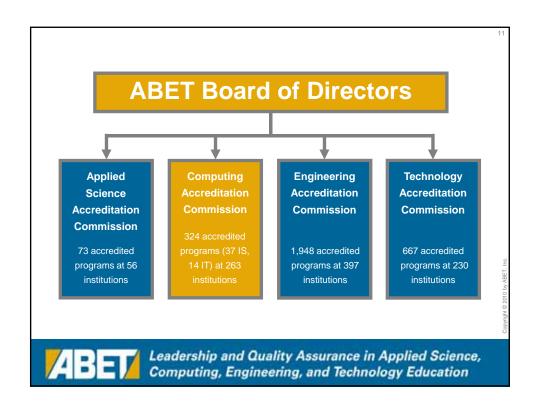
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### **ABET**

- Organization recognized as responsible for accrediting educational programs in applied science, computing, engineering, and engineering technology in the United States and also internationally.
- Federation of 30 professional and technical societies (ABET member societies), representing more than 1.8 million practicing professionals.

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# **Responsibilities of ABET Board**of Directors and Commissions

#### **Board of Directors**

- Provides strategic vision/ mission
- Approves policy
- Approves criteria
- Considers appeals of not-to-accredit decisions

#### **Commissions**

- Recommend criteria
- Conduct the accreditation process
- Assign team chairs for campus visits
- Make final accreditation decision by vote of entire membership

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# Responsibilities of Member Societies

- Develop program criteria
- Select, train, and mentor program evaluators (for visiting teams)
- Nominate commissioners
- Appoint ABET Board of Directors members
- Work with commissions



### CSAB, Inc.

(formerly the Computing Sciences Accreditation Board, Inc.)

- The ABET "society" for computing accreditation
- A federation of ACM and IEEE-CS
- Lead ABET society for Computer Science, Information Systems, Information Technology, and Software Engineering
- Cooperating society for Computer Engineering, Biological Engineering, and Information Engineering Technology
- Develops program-specific accreditation criteria for lead society programs
- Additional information is available at www.csab.org



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## **CSAB History**

- 1985 CSAB Incorporated; formed by ACM and IEEE-CS
- 1986 First CS programs accredited
  - Computer Science Accreditation Commission (CSAC)
- 2000 CSAB joined ABET
  - CSAC → CAC
- 2002 IS accreditation established
- 2005 IT accreditation established (pilot until 2008)

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### **Information**

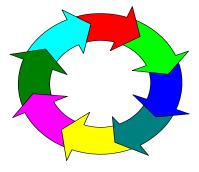
 General information about ABET, its commissions, and its member societies is available on the ABET webpage: http://www.abet.org.

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**The Accreditation Process** 



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#### **The Accreditation Process**

- Types of Reviews
- Timeline (Process Overview)
- Pre-Visit Activities
- Visiting Team Composition
- Campus Visit
- Post-Visit Activities

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# **Types of Reviews**

- Initial
  - For programs not currently accredited.
  - Addresses all applicable criteria.
- Comprehensive
  - Review of all programs under the purview of a particular commission.
  - Conducted every six years simultaneously for all programs.
  - Addresses all applicable criteria.

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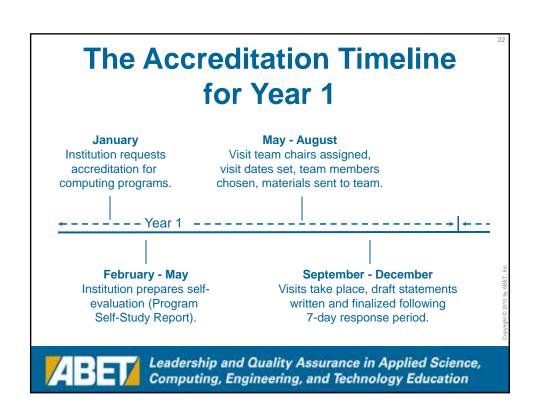
## Types of Reviews (Cont.)

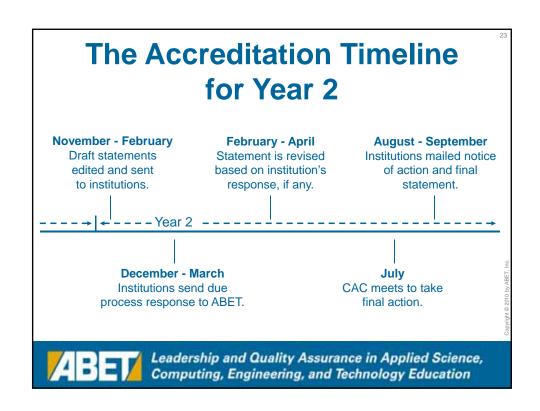
#### Interim

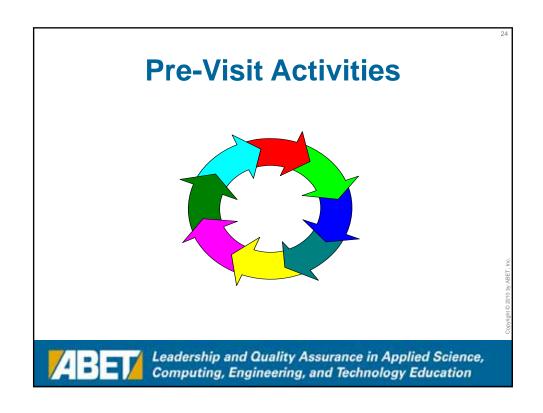
- Occurs when a program was found to have a deficiency or weakness in the prior review.
- Addresses deficiencies, weaknesses, and concerns from previous visit.
  - Can address other significant changes to the program
  - · May involve an on-site visit or may require only a report

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#### **Institutional Perspective**

- Apply to ABET for accreditation (due January 31).
- Prepare self-study reports (due July 1).
- Approve team chair and visiting team members.

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#### **Pre-Visit Activities**

#### **Institutional Perspective (cont.)**

- Work with team chair to set visit date, create visit schedule, and make visit arrangements.
  - Appointments with CEO, CAO, and Dean need to be established as early as possible. (Can be the main constraint for possible dates.)
- Send self-study, transcripts, catalogs, brochures, checklists, etc., to visiting team members.
  - Provide pointers to webpages.
  - Electronic (e.g., CD) version of self-study is appreciated.

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#### **Institutional Perspective (cont.)**

- · Assemble course displays.
  - One set of materials for each course in major.
    - Syllabus, textbook
    - · Assignments, tests, exams
    - Examples of graded student work (poor, fair, good)
    - Consistent "look and feel" is important.
  - Provide access to online material.
    - · Give special consideration to distance learning.
- Assemble assessment data.
  - Provide in course display area.



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#### **Pre-Visit Activities**

#### **Institutional Perspective (cont.)**

- Arrange team meeting room.
  - Sunday (or other) access
  - Computer(s) with network access
    - Team may prefer own computers with Internet access.
  - Local printer
  - Course and assessment materials
  - Access to copier
  - Paper shredder is appreciated.

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**Institutional Perspective (cont.)** 

- Recommend hotel(s) for team.
  - Comfort, convenience
  - Reasonable price
- Assist with other logistics.
  - Parking
  - Transportation arrangements to campus
  - Restaurant suggestions

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#### **Visiting Team Perspective**

- Team chair appointed by CAC and develops schedule with institution's representative.
- Program evaluators appointed by CSAB.
- Team analyzes visit materials and prepares for on-site activities.



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### **Pre-Visit Communications**

- CAC team chair is the <u>only</u> CAC team member who communicates with the institution.
- CAC communication rules differ from other commissions' rules.

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 Other PEVs communicate directly with program representatives.

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# **CAC Visiting Team Responsibilities**

- Organize visit.
- Study materials provided by institution.
- Conduct visit.
- Analyze information.
- Prepare a statement of findings.
- · Assess institution's post-visit actions.
- Present findings and recommended action to CAC.



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# **Visiting Team Composition**

- CAC (only) visit to computing programs
  - Comprehensive or Initial Review
    - CAC team chair and at least 2 CSAB program evaluators
    - May be more PEVs for multiple programs
      - One PEV per program
  - Focused Visit
    - CAC team chair and 0 or 1 CSAB PEV

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## **Visiting Team Composition**

- Coordinated visit with another ABET commission
  - All visits
    - One team chair from each commission
    - Many possible combinations for PEVs!
      - Normally one per program; sometimes two if only one CAC program

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# Objectives of the Campus Visit

- Assess factors that cannot be documented easily in a self-study.
- Examine materials compiled by the institution.
- Observe the validity of the self-study.
- Provide a preliminary assessment of program strengths and shortcomings.

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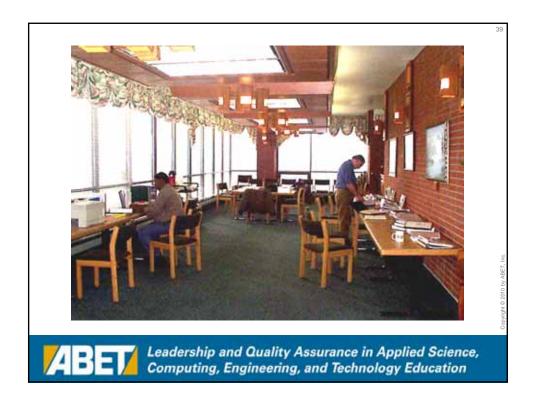
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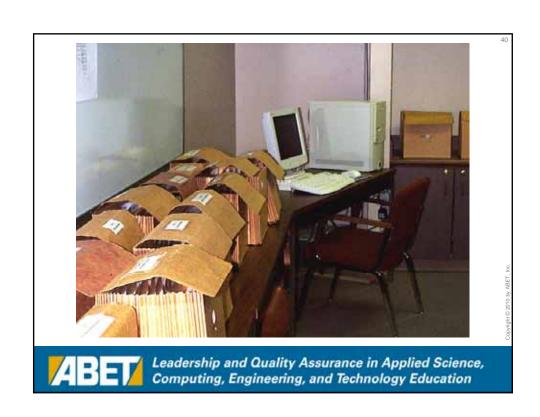
# **Sample Sunday Schedule**

1 p.m.	Initial team meeting (closed)
2 p.m.	Visiting team reviews course display and assessment data, visits labs and other facilities.
6 p.m.	Team dinner and discussion (closed)
8 p.m.	Team planning meeting (closed)

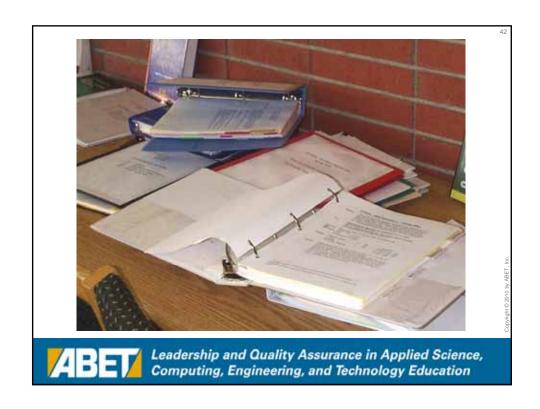
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# **Sample Monday AM Schedule**

8:00	Opening Meeting (visiting team, dean, program head, guests)
9:00 – 11:00	Team chair meets with president, provost, dean, program head, etc.
	Program evaluators meet one-on-one with program head and faculty members.
11:00	Team meets with students (class or invited group).
12 noon	Lunch (Institution can sponsor luncheon for team and guests, if desired.)



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# **Sample Monday PM Schedule**

1:30 – 4:30	Team chair meets with office of assessment, placement, registrar, etc.
1:30 – 2:30	Program evaluators continue faculty meetings.
2:30 – 4:30	Program evaluators meet with faculty, staff, members of supporting departments, tour library, etc.
4:30	Team meeting (closed)
5:00	Program evaluators meet with program head(s).
6:00	Team dinner and meeting (closed)

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# Sample Tuesday AM Schedule

8:00	Program evaluators meet with program head(s).
8:30 – 10:00	Reserved for additional meetings
10:00 – 11:00	Team meeting (closed)
11:00 – 11:30	Program evaluators present findings to program head(s) and guests.
11:30 – 12 noon	Team chair presents findings to dean.



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# Sample Tuesday PM Schedule

12:00 – 2:00	Working lunch and team meeting (closed)
2:00 - 3:00	Exit meeting (team, president, guests)
3:00	Visiting team leaves campus

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**Notes on Schedule** 

- Initial meeting Monday morning should include an overview of the college/institution by the dean.
- **If convenient**, some interaction with program graduates is nice.
  - Monday lunch is a good time for this.
- Establish appointments with CEO, CAO, Dean ASAP.
  - Work with team chair if conflicts arise.

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## **Exit Meeting**

- Institution determines attendance.
  - Requested: CEO, CAO
- · Conducted by team chair.
- States program strengths.
- States all deficiencies, weaknesses, and concerns relative to criteria.



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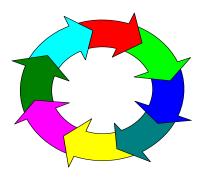
**Exit Meeting** 

- Does not mention recommended accreditation action.
- Not a forum for discussion.
- Team leaves Program Audit Form for each program summarizing any deficiencies, weaknesses, and concerns.
- Team chair explains the "next steps."

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**Post-Visit Activities** 

- Institution's 7-Day Response (optional)
  - Errors in fact only
- Draft Statement of Findings
  - Prepared by team, edited at two levels, then sent to the institution.

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### Post-Visit Activities (Cont.)

- Institution's Due Process Response
  - Due within 30 days of receipt of draft statement.
  - Programs are encouraged to solve problems quickly.
  - Describe and document changes made since the visit.
- Final Statement ALP2
  - Incorporates Due Process Response.

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### Post-Visit Activities (Cont.)

- Final Statement serves as the basis for the commission (CAC) action on accreditation at July meeting.
  - Institution may submit supplemental material up to the time of the annual CAC meeting.
- Final Statement and accreditation letter sent by ABET to the institution.
- Only "Not to Accredit" can be appealed.



#### Slide 53

ALP2 Do you want to say something about acceptance of materials that are submitted just prior to the meeting?

The TC has the right to refuse to include materials (e.g. a box of material arrives at your home the night before you leave for the Commission meeting)

Art Price, 5/4/2010

#### Slide 54

ALP3 Do you want to say something about acceptance of materials that are submitted just prior to the meeting?

The TC has the right to refuse to include materials (e.g. a box of material arrives at your home the night before you leave for the Commission meeting)

Art Price, 5/4/2010



**Emphasis** 

- Continuous improvement
  - Process focused
  - Assessments and improvements linked to objectives
- Knowledge and skills required for entry to computing profession
- Student, faculty, curriculum, facilities, and institutional support issues linked to program objectives

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#### **CAC Criteria Structure**

- 2010-2011 Criteria for Accrediting Computing Programs
  - General Criteria
    - Applies to all CAC programs
  - Program Criteria
    - CS, IS, IT
  - Similar to criteria of other ABET commissions

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### **CAC General Criteria**

- Criterion 1. Students
- Criterion 2. Program Educational Objectives
- Criterion 3. Program Outcomes
- Criterion 4. Continuous Improvement
- Criterion 5. Curriculum

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### **CAC General Criteria**

- Criterion 6. Faculty
- Criterion 7. Facilities
- Criterion 8. Support
- Criterion 9. Program Criteria



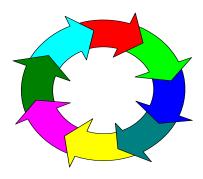
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# **Questions/comments** regarding the criteria?







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**Levels of Criteria Compliance** 

- To be accredited, a program must satisfy each criterion and all applicable policies.
  - A primary purpose of the self-study and the visit are to provide the program an opportunity to demonstrate how each criterion is satisfied.
- If a program does not satisfy a criterion or policy, it has a <u>deficiency</u>.

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# Levels of Criteria Compliance (cont.)

- If a program lacks the strength of compliance with a criterion to assure that the quality of the program will not be compromised prior to next general review, the program has a <u>weakness</u> with respect to the criterion.
- Remedial action is required to strengthen compliance prior to the next evaluation.
- Weaknesses impact the term of accreditation.



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# Levels of Criteria Compliance (cont.)

- If a criterion is currently satisfied but the review indicates that a **potential** exists for nonsatisfaction in the future, there can be a <u>concern</u> with respect to the criterion.
- Concerns do not impact the length of the term of accreditation.
- Concerns are of primary interest during the next program evaluation.

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## **Shortcomings**

- ABET uses the word "shortcomings" to refer collectively to deficiencies, weaknesses, and concerns.
- Even though concerns do not affect the term of accreditation, you should report all actions taken relative to concerns at your next evaluation.



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**Evaluation Summary** 

- For each criterion, there is a finding:
  - Criterion is satisfied.
  - There is a shortcoming relative to the criterion:
    - There is a concern relative to the criterion.
    - There is a weakness relative to the criterion.
    - There is a deficiency relative to the criterion.
    - More than one may apply.

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# **Evaluation Summary (cont.)**

- Compliance with each criterion is evaluated:
  - At the end of the visit.
  - Seven days after the visit.
    - · Only for errors of observation, not for corrective actions
  - During each of the two editing stages.
    - For consistency of criteria application across multiple evaluations
  - After the due process response is received.
    - · By team and by each editor
- The finding can change at any step.
  - Change to a more severe finding is rare.



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### **Accreditation Actions**

Typical Duration (yrs)

		- <del> </del>	
NGR	<b>Next General Review</b>	6	
IR	Interim Report	2	
IV	Interim Visit	2	
SC	Show Cause	2	
RE	Report Extended	2 or 4	
VE	Visit Extended	2 or 4	Line of
SE	<b>Show Cause Extended</b>	1-5	TABET
NA	Not to Accredit	_	nuinht @ 2017
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# Actions for Comprehensive Reviews

- A comprehensive or initial review results in:
  - NGR if there are no deficiencies or weaknesses.
  - IV or IR if there are weaknesses but no deficiencies.
    - IV is recommended when resolution cannot be determined by review of a written report.
  - SC or NA if there is a deficiency.
    - · SC is only for currently accredited programs.

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Actions for Interim Reviews

- Interim reviews are conducted for programs holding IV, IR, or SC actions from the previous evaluation.
- An interim review results in:
  - VE, RE, or SE if there are no deficiencies or weaknesses.
    - Accreditation is extended to the next scheduled comprehensive review.
  - IV or IR if there are weaknesses but no deficiencies.
  - SC or NA if there is a deficiency.

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#### **Observations**

- A team may also offer observations.
- An observation has no effect on the accreditation action.
- Observations are offered in a consultative role for whatever use the institution wishes to make of them.

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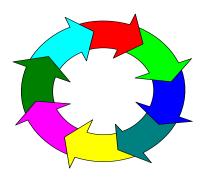
Confidentiality

- Information supplied by the institution and derived from the visit is for confidential use by ABET and the Computing Accreditation Commission.
- ABET has specifically authorized professional societies to participate in the accreditation process.

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# **Designation of Program Accreditation Status**

- Institution must clearly designate accredited programs with specified wording in all public documents (Policy II.L.6).
- Institution must so designate non-accredited programs in same field as an accredited program if it isn't clear otherwise (II.L.7).
- See Accreditation Policies II.L.4-8.

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### **Notes on CAC Criteria**

- Common ABET definitions and documents
- New CAC criteria in 2008-09
  - Eliminated Standards
  - General and Program Criteria
  - Consistency with other ABET commissions
    - Criteria numbers and titles same for all commissions
  - Emphasis on program educational objectives, program outcomes, assessment, and continuous improvement



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### **Notes on CAC Criteria**

- Effective for all general evaluations in 2009-10 and 2010-2011
  - (Interim evaluations always use the criteria from the previous evaluation.)

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# **Future Changes**

- Further harmonization of criteria among ABET commissions for 2011-12
- Harmonization of self-study and other documents.

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## **Questions/Comments?**

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# Thank you!

• Please complete the session evaluation.

