1.0 Applicable Degrees
This assessment program is applicable to all undergraduate degrees for which the UAF Physics Department has responsibility. These are the BS and BA degrees in Physics and the BS degrees in Applied Physics and General Science. No distinction is made for the purpose of implementation, but there are slight differences in wording between the physics and general science questionnaires, as the general science students are concerned with science courses in many other departments other than the Physics Department.

2.0 Program Objectives
The objectives of each degree program in terms of academic achievement should be clearly specified in the UAF Catalog. First, this is a single, widely available document that stipulates all degree requirements and course offerings. Second, by identifying a sole source, the possibility of stale information in a second or additional forgotten sources is eliminated. Any deficiencies in current listings will be corrected at the next opportunity in order to fulfill the needs of the assessment program.

3.0 Physics Department’s Undergraduate Program Office
The Physics Department operates an Undergraduate Program Office staffed by the department’s administrative assistant. Supervision of the Undergraduate Program Office is the responsibility of the department chair, with leadership for mentoring of physics-related degree majors provided by departmental faculty members. A single faculty member mentors all general science majors and is responsible to the faculty for the general science program. The department’s administrative assistant maintains all relevant departmental records and carries out routine communications with the UAF Registrar’s Office and all current undergraduate students.

The procedure within the Physics Department for admission of students into a degree program is to accept all students who declare physics or general science as their intended degree major (unless grades are a serious concern). The department’s administrative assistant routes the student’s name to an assigned departmental mentor (undergraduate advisor) and so informs the student. The undergraduate faculty advisors comprise the department’s undergraduate Assessment Review Committee. The department chair can be an ad hoc member if the committee so desires.

4.0 The Assessment Plan
The existing assessment plan is built around a written exit survey (or “interview”) that comprises two parts; set questions with numerical answers and optional written comments. The survey is submitted to each student in the last semester of his or her degree program, and can be submitted anonymously if the student so elects. Copies of the physics and general science forms used for the survey at graduation are attached herein.
Outcomes Assessment for Undergraduate Programs
in the UAF Physics Department

A follow up survey is scheduled for five years after graduation. The department’s administrative assistant is responsible for organizing completion of all assessment surveys, with assistance from the mentoring faculty.

4.1 Yearly Assessment
The graduation exit survey questions (physics and general science) cover four general areas: UAF, the student’s degree program, program faculty, and other. They are further intended to help direct the student’s thoughts to subject areas for which written comments might follow, thus providing some background into the students thinking. One historical difficulty in assessing outcomes is the existence of several variations on this survey form over the years, even if the general direction of the questions has been maintained. The form has been stabilized into its present state.

The analysis comprises two different parts. Numerical answers to exit survey questions are tabulated by year or in the case of limited graduations, several contiguous years, and averages are taken to form a compact summary of results for the cohort. Means are derived for each of the four subgroups of question areas and overall. These results are also sorted in order of decreasing mean scores to identify the four best and least appreciated subject areas.

The second part (certainly more recently anyway) comprises a written copy of all comments by the students. The objective is to look for common themes in the comments that can represent the truly outstanding areas of difficulty or areas of current success.

In addition, each student is invited to meet with either the chair of the Physics Department or a member of the Assessment Committee for a private meeting to further discuss the department’s programs. This interview can be in confidence or notes can be forwarded to the assessment committee (with or without the student being identified); it is the student’s choice.

It is the job of the Assessment Committee to review this information and draft a yearly report to the department chair on what has been leaned from the assessment of graduating seniors.

4.2 Five-year Follow-up Survey/Interview and Evaluation
This final step – the individual outcome – is crucial to a complete outcomes assessment plan. To be successful, it is necessary to not lose contact with the student. Successful students are generally easy to follow, as they remain active. Other means include alumni associations and the Physics Department’s newly formed undergraduate scholarship program, in which a concerted effort will be made in cooperation with the UAF office for Advancement Services to solicit ongoing contributions to an endowed fund.

Graduates will be contacted for a follow-up interview five years after graduation. The content of each interview along with an assessment of the student’s academic performance in the degree program will comprise the information for the follow-up
Outcomes Assessment for Undergraduate Programs  
in the UAF Physics Department

assessment. This part of the existing plan does not appear to have been implemented and no survey document has yet been created.

5.0 The Yearly Report
A yearly report of the assessment effort is prepared by the chair of the Assessment Committee and submitted to the department chair by 1 February. The committee reviews and evaluates the acquired data for the previous academic year and the five-year survey, and, based on the findings and personal judgments as to its relevance, makes recommendations to the department chair for any changes in the academic programs.

Recommendations are to be based upon clearly articulated observations by individual graduates and by themes emerging from multiple sources. An example might be repetitive comments about the basic content of a particular course over years. A more delicate example would be repetitive critical observations on an instructional method. Special handling would be required, but honest assessment by students cannot be ignored.

As to career development, the degree of professional success in later years is never a forgone conclusion. What counts in large part is if the graduate believes that his or her educational experience at UAF and in the major area in particular have been a positive benefit.

The department chair works with the drafting committee on any outstanding areas of concern. Differences of opinion are to be included in the final report. This report, with the chairs contributions, is then forwarded by the chair to the department’s faculty for comments. Only then are copies submitted to the Dean of CNSM and to the Vice Provost for Academic Affairs. These are not for public distribution. No students’ names are included in the report.

6.0 The Four-Year Report
A formal assessment report at four-year intervals is prepared by the department chair for submission to the Vice Provost for Academic Affairs. This report is based on data collected, content of the yearly reports, Assessment Committee recommendations, and faculty actions that followed from the assessment to improve the academic curriculum and student research.

It would be highly speculative to attempt an outline of how the faculty would respond to a recommendation by the assessment committee, for it would depend in large part on the strength of data leading to the recommendation (or to know what is noise and what is signal).

A first report is expected by March 2005.
The purpose of this exit interview is to capture your personal evaluation of the physics degree program that you have successfully completed. The results assist us in fulfilling one of our self-imposed obligations as part of UAF’s mandated student learning outcomes assessment program, which is designed to create a feedback path from the outcome (your successful degree program) to the input (student selection and program content).

The interview comes in two parts; written and oral. The written part is completed prior to your departure from campus after final exams. It can be done anonymously or openly (by signing your name); the choice is yours. In either case, please return the completed form (in the accompanying envelope) to the department’s administrative assistant in the Physics Department Office. She will preserve any requested autonomy and enter the information into a larger anonymous database from which the department will construct its outcomes assessment report for the Vice Provost for Instructional Affairs. A follow-up interview is planned for five years after graduation.

We would be particularly grateful if you would agree to an oral interview with the department chair or a member of the outcomes assessment committee. You can discuss this with the department’s administrative assistant, who can arrange a meeting as per your request.

In the end, it is the substantive comments made by you that are most helpful. Positive comments tell us where we are succeeding, while constructive negative comments will be used in seeking improvements in our programs. Benefits of this adventure are that you will have given a gift to future students of our program.

The Physics Department’s Undergraduate Outcomes Assessment Committee
# UAF Physics Department’s Exit Interview

## Graduating Baccalaureate Students in Physics Programs

<table>
<thead>
<tr>
<th>Year Entered Program</th>
<th>Year Graduating</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
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</tbody>
</table>

**Program Degree**

B.S. or B.A. in Physics or Applied Physics

**NAME (Optional)**


### Upon graduation, I am:

- [ ] Taking a job related to my major
- [ ] Taking a job unrelated to my major
- [ ] Continuing my studies in a professional/graduate school
- [ ] Other

Please provide an answers using this numerical scheme:

1 = strongly disagree  2 = disagree  3 = neutral  4 = agree  5 = strongly agree

1. I can recommend UAF to another student.

2. In general, the quality of instruction at UAF is high.

3. In concept, the UAF baccalaureate core curriculum is a good idea.

4. UAF as a whole provides a stimulating atmosphere for undergraduate study.

5. I can recommend my physics degree program to another student.

6. I am pleased with the curriculum in my physics degree program.

7. The quality of instruction in the physics department is high.

8. Class sizes in the physics classes are appropriate.

9. Undergraduate research opportunities were available to me.

10. I had a rewarding undergraduate research experience.

11. Faculty members in the physics department provide a stimulating atmosphere.

12. Faculty members in the physics department are constructively involved in education.

13. Faculty members in the physics department are accessible and helpful.

14. My academic advisor in the physics department was accessible and helpful.

15. Teaching assistants in my lower-division labs were knowledgeable and helpful.

16. Fellow students were intellectually stimulating.

17. The physics department staff was accessible and helpful.

18. I am prepared for the next step in my professional development.

NEXT PAGE
WRITTEN COMMENTS (both sides, if needed)

If you wish, describe an area (or areas) in which the instructional program was; (a) very good; (b) acceptable or in need of minor improvements; and/or (c) sadly lacking.

Are there any general thoughts on the department that you would like to share?

Please return this form to the Physics Department’s Office in the NSF using the accompanying self-addressed envelope. It can be mailed or delivered in person. Thank you!
FORWARDING ADDRESS

The outcomes assessment program includes a final interview five years after graduation. Please provide a forwarding address and assist us by letting us know of future address changes. In turn, we will keep you informed of our department’s activities.

Name: ___________________________________________________

Address:

Email Address:
The purpose of this exit interview is to capture your personal evaluation of the general science degree program that you have successfully completed. The results assist us in fulfilling one of our self-imposed obligations as part of UAF’s mandated student learning outcomes assessment program, which is designed to create a feedback path from the outcome (your successful degree program) to the input (student selection and program content).

The interview comes in two parts; written and oral. The written part is completed prior to your departure from campus after final exams. It can be done anonymously or openly (by signing your name); the choice is yours. In either case, please return the completed form (in the accompanying envelope) to the General Science Program’s administrative assistant in the Physics Department Office. She will preserve any requested autonomy and enter the information into a larger anonymous database from which the department will construct its outcomes assessment report for the Vice Provost for Instructional Affairs. A follow-up interview is planned for five years after graduation.

We would be particularly grateful if you would agree to an oral interview with the department chair or a member of the outcomes assessment committee. You can discuss this with the department’s administrative assistant, who can arrange a meeting as per your request.

In the end, it is the substantive comments made by you that are most helpful. Positive comments tell us where we are succeeding, while constructive negative comments will be used in seeking improvements in our programs. Benefits of this adventure are that you will have given a gift to future students of our program.

The General Science Program’s Outcomes Assessment Committee
UAF Departmental Exit Interview for Graduating Baccalaureate Students in the General Science Program

Year Entered Program ___________________ Year Graduating ___________________

Program Degree ______________________ NAME (Optional) ______________________
B.S. or B.A. in General Science

Upon graduation, I am:

☐ Taking a job related to my major
☐ Taking a job unrelated to my major
☐ Continuing my studies in a professional/graduate school
☐ Other

Please provide answers using this numerical scheme:

1 = strongly disagree  2 = disagree  3 = neutral  4 = agree  5 = strongly agree

1. I can recommend UAF to another student. ______
2. In general, the quality of instruction at UAF is high. ______
3. In concept, the UAF baccalaureate core curriculum is a good idea. ______
4. UAF as a whole provides a stimulating atmosphere for undergraduate study. ______
5. I can recommend my general science degree program to another student. ______
6. I am pleased with the curriculum in my general science degree program. ______
7. The quality of instruction in the various science departments is high. ______
8. Class sizes in the science classes are appropriate. ______
9. Faculty members in the science departments provide a stimulating atmosphere. ______
10. Faculty members in the science department are constructively involved in education. ______
11. Faculty members in the science departments are accessible and helpful. ______
12. My academic advisor was accessible and helpful. ______
13. Teaching assistants in my lower-division labs were knowledgeable and helpful. ______
14. Fellow students were intellectually stimulating. ______
15. The science department staffs were accessible and helpful. ______
16. I am prepared for the next step in my professional development. ______

NEXT PAGE
WRITTEN COMMENTS  (both sides, if needed)

If you wish, describe an area (or areas) in which the general science instructional program was; (a) very good; (b) acceptable or in need of minor improvements; and/or (c) sadly lacking. You can be specific to individual science departments in your program.

At UAF, the Physics Department administers the General Science Program. Please return this form to the Physics Department’s Office in the NSF using the accompanying self-addressed envelope. It can be mailed or delivered in person. Thank you!
FORWARDING ADDRESS

The outcomes assessment program includes a final interview five years after graduation. Please provide a forwarding address and assist us by letting us know of future address changes.

Name: ___________________________________________________

Address:

Email Address: