VISION

(BOR Resolution No. 25 s. 2016)

A premier state university with recognized excellence in engineering and technology education at par with leading universities in the ASEAN region.

MISSION

(Section 2 of P.D. No. 1518)

The University shall provide higher and advanced vocational, technical, industrial, technological and professional education and training in industries and technology and in practical arts leading to certificates, diplomas and degrees. It shall provide progressive leadership in applied research, developmental studies in technical, industrial, and technological fields and production using indigenous materials; effect technology transfer in the countryside; and assist in the development of small-and-medium scale industries in identified growth centers.

DEPARTMENT OF INDUSTRIAL EDUCATION GOALS

1. To periodically review the curricular program to produce competent and committed teachers.
2. To undertake development and innovative researchers in Industrial Education.
3. To facilitate transfer of technology in Industrial Education through expanded and effective linkages with industry and other sectors.
4. To produce teachers who understand and appreciate genuine human ideas and values.
5. To imbue prospective teachers with desirable characteristics.

OBJECTIVES

1. Offer relevant and responsive curricular programs.
2. Initiate the conduct of researches in pedagogy and related educational technology.
3. Intensify community involvement through extension programs and projects.
4. Develop attitude, personal discipline, moral, social and cultural values of the students.
5. Equip prospective teachers with desirable personal and social characteristics, qualities and traits.

REPUBLIC OF THE PHILIPPINES
TECHNOLOGICAL UNIVERSITY OF THE PHILIPPINES
CAVITE CAMPUS
Carlos Q. Trinidad Avenue, Salawag, Dasmariñas City, Cavite, Philippines
Telefax: (046) 416-4920
Email: cavite@tup.edu.ph | Website: www.tup.edu.ph

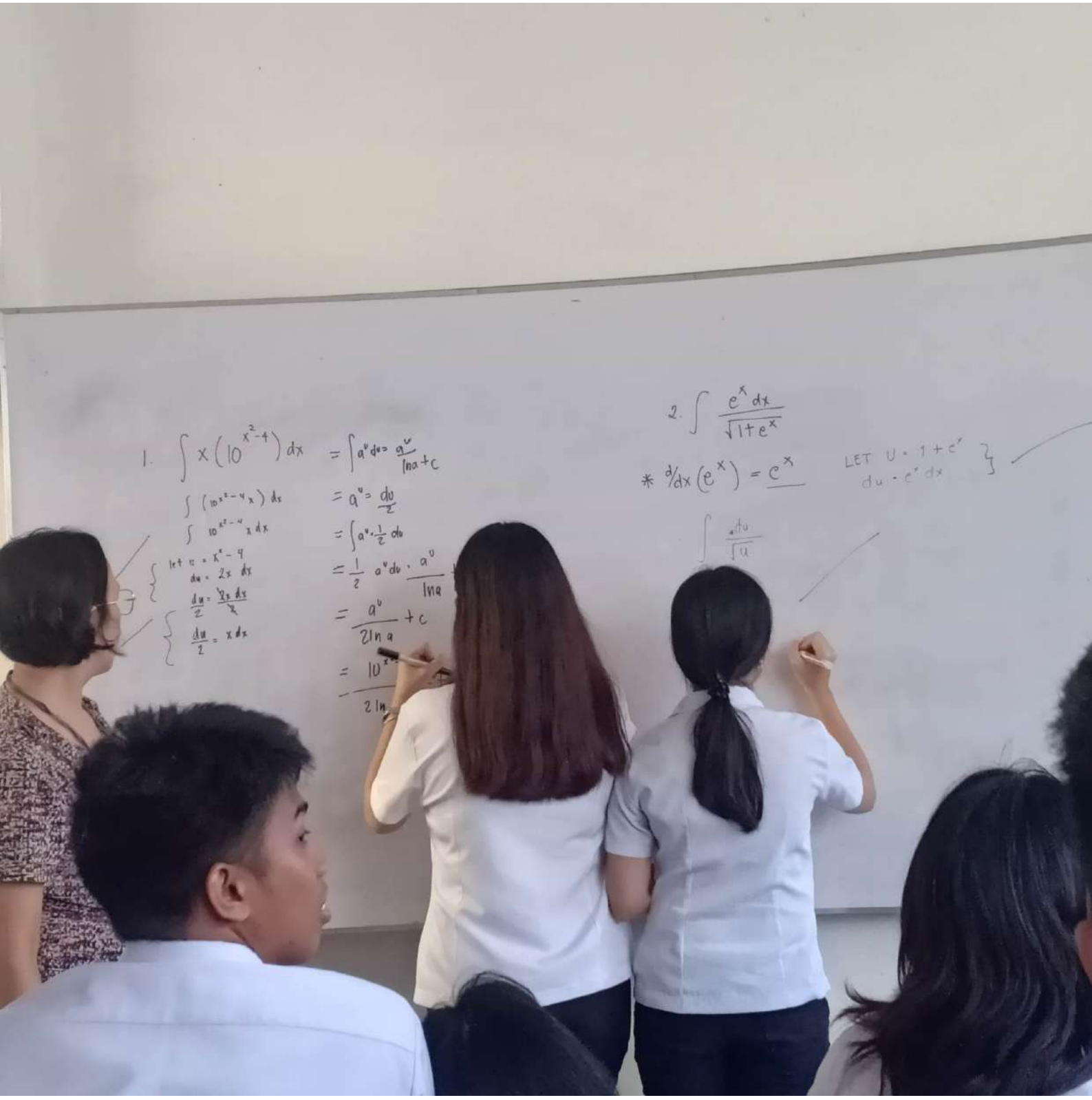
BTVTED

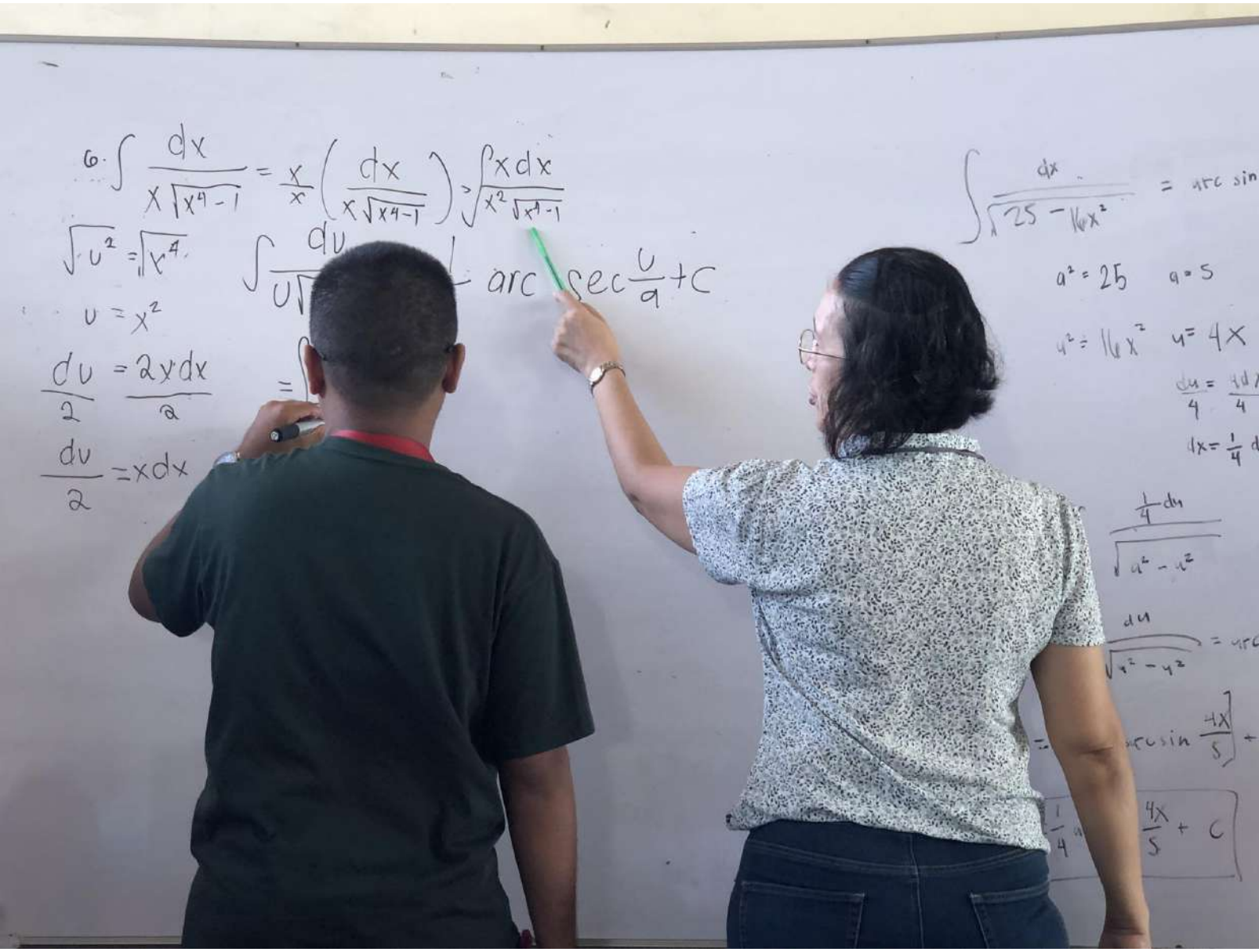
AREA III

CURRICULUM AND INSTRUCTION

B. Instructional Process, Methodologies and Learning Opportunities

S.5. There is provision for remedial measures to strengthen the basic skills in Mathematics and English and other “tool” subjects.


1. $\int x(10^{x^2-4})\,dx$
$= \int a^u du = \frac{a^u}{\ln a} + c$
$\int (10^{x^2-4} x)\,dx$
$= a^u = \frac{du}{2}$
$\int 10^{x^2-4} x\,dx$
$= \int a^u \cdot \frac{1}{2}\,du$
let $u = x^2 - 4$
$du = 2x\,dx$
$= \frac{1}{2} a^u du \cdot \frac{a^u}{\ln a}$
$\frac{du}{2} = \frac{2x\,dx}{2}$
$= \frac{a^u}{2 \ln a} + c$
$\frac{du}{2} = x\,dx$
$= \frac{10^{x^2}}{2 \ln}$
2. $\int \frac{e^x dx}{\sqrt{1+e^x}}$
* $\frac{d}{dx}(e^x) = e^x$
LET $U = 1 + e^x$
$du = e^x dx$
$\int \frac{du}{\sqrt{u}}$


6. ∫ dx / (x√(x⁴−1)) = x/x (dx / (x√(x⁴−1))) = ∫ x dx / (x²√(x⁴−1))
√(u²) = √(x⁴)
u = x²
du/2 = 2x dx / 2
du/2 = x dx
∫ du / (u√(u²−a²)) = 1/a arc sec u/a + C
∫ dx / √(25 − 16x²) = arc sin
a² = 25 a = 5
u² = 16x² u = 4x
du/4 = 4dx/4
dx = 1/4 du
1/4 du / √(a² − u²)
du / √(a² − u²) = arc
= 1/4 arcsin 4x/5 +
1/4 4x/5 + C