Solution Code

```c
/* C program to find second largest number in an array  */
#include <stdio.h>
#include <limits.h> //For INT_MIN
#define MAX_SIZE 1000
int main(){
    int arr[MAX_SIZE], N, i;
    int max1, max2;
    printf("Enter size of the array (1-1000): ");
    scanf("%d", &N);
    printf("\nEnter %d elements in the array: \n",N);
    for(i=0; i<N; i++) {
        printf("\nEnter %d element in an array: ",i+1);
        scanf("%d", &arr[i]);
    }
    max1 = max2 = INT_MIN;
    for(i=0; i<N; i++){
        if(arr[i] > max1) {
            max2 = max1;
            max1 = arr[i];
        }
        else if(arr[i] > max2) {
            max2 = arr[i];
        }
    }
    printf("\nFirst largest = %d\n", max1);
    printf("\nSecond largest = %d", max2);
    return 0;
}
```